

Third Pilot Review Sessions on Pas advancement

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1. Introduction

1.1. Deliverable description

As its name suggest, the deliverable 5.3.1 “Third Pilot Review Sessions on pilot actions advancement” is the third and last document in which project partners (PP) describe the most recent outcomes of the Pilot Action (PA) for which they are responsible. In the introductory section of this deliverable, some generalities are resumed from the consolidated documentation in order to introduce the classification of the PAs, according to which following sections are structured.

In the second chapter an overview of the PAs is illustrated thanks to aggregated statistics and to the evidence collected from the online monitoring tool. The third chapter is made of the contributions coming directly from the partners, one per each PA. Similarly, to the 1st and the 2nd advancement report, the template of the 3rd contribution asked to PPs was though for tackling the following points:

- PA introduction and aim
- Activities carried out so far
- Intermediate results
- Next activities
- Actors, beneficiaries, and stakeholder involvement
- Problems encountered

1.2. Clustering of the pilot actions

As described in the deliverable 5.1.1 “Pilot action development methodology” and in the previous advancement reports, the 25 PAs are grouped as follows (Figure 1-1) by their macro-theme, and, in the ICT case, by their sub-topic:

- ICT application and service development (ICT)
 - Promotion of ports’ resources and territory
 - Monitoring of seaside and landside port areas
 - Management of port operations and services
 - Harbour and navigation safety
- Spatial planning and management (P&M)
- Business oriented aspects

- Training and knowledge aspects (T&K)
- Environment and energy aspects (E&E).

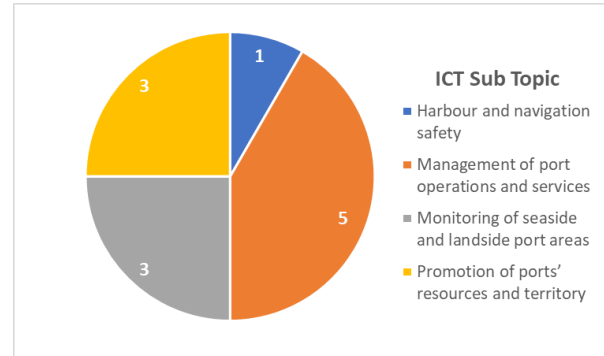
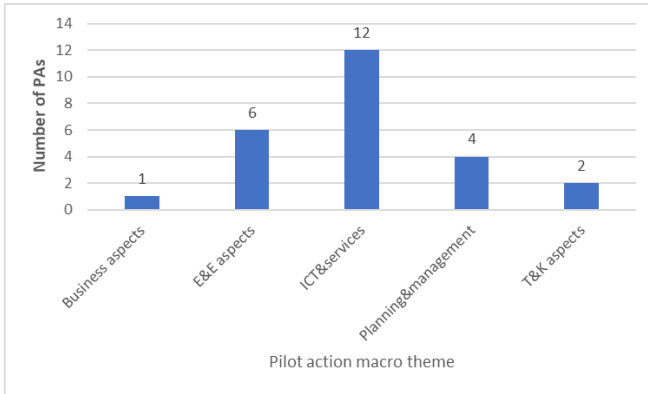


Figure 1-1 Macro-themes of the Pilot Actions and ICT sub-topics

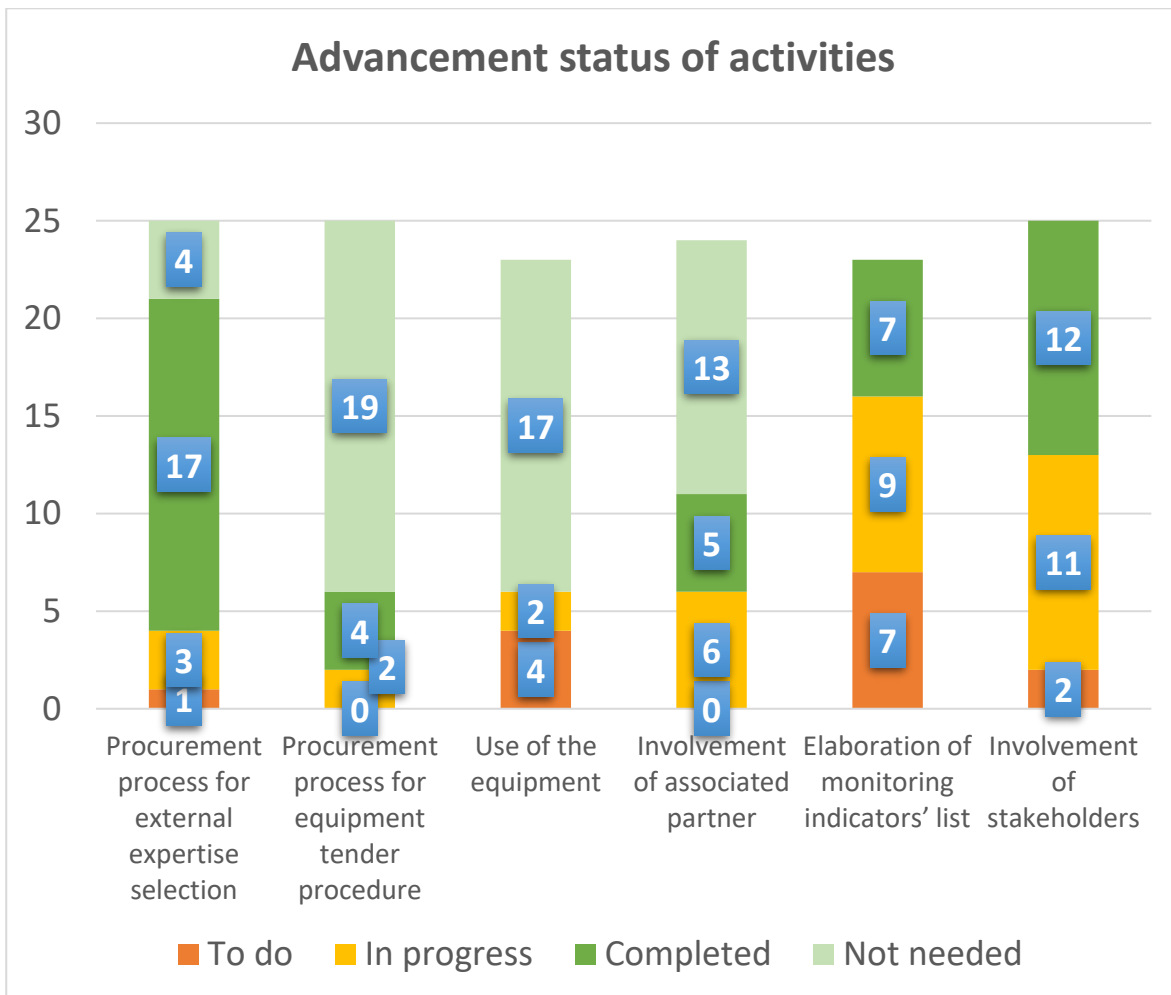
3. Overall analysis and considerations

This section contains some considerations which are the result of the contributions provided by project partners and of the online monitoring tool that PPs were asked to update.

3.1. Status of advancement

Project partners (PPs) were asked to deliver the “Pilot action report – 3rd stage”, namely a document containing the advancement status of each pilot action (PA), and to update the monitoring tool, which is a spreadsheet where main milestones of are summarized for each PA. Milestones can be labelled as “Completed”, “In progress”, “To do”, or “Not needed”. Aggregated statistics are shown in

Figure 3-1 as they stand in March 2022. Neglecting two PAs that are having some delays with the beginning of the activities, the deliverable production (preparatory report, 1st advancement report, 2nd advancement report and 3rd advancement report) is going on properly in almost all the cases. The selection of external expertise is almost completed by all and the involvement of the stakeholders is completed for about half of the PAs, whereas they are in progress for the rest of the PAs. The procurement process for equipment or expertise and the use of the equipment itself are often even not needed. When necessary, the former phase is in progress, while the latter has often to begin yet.



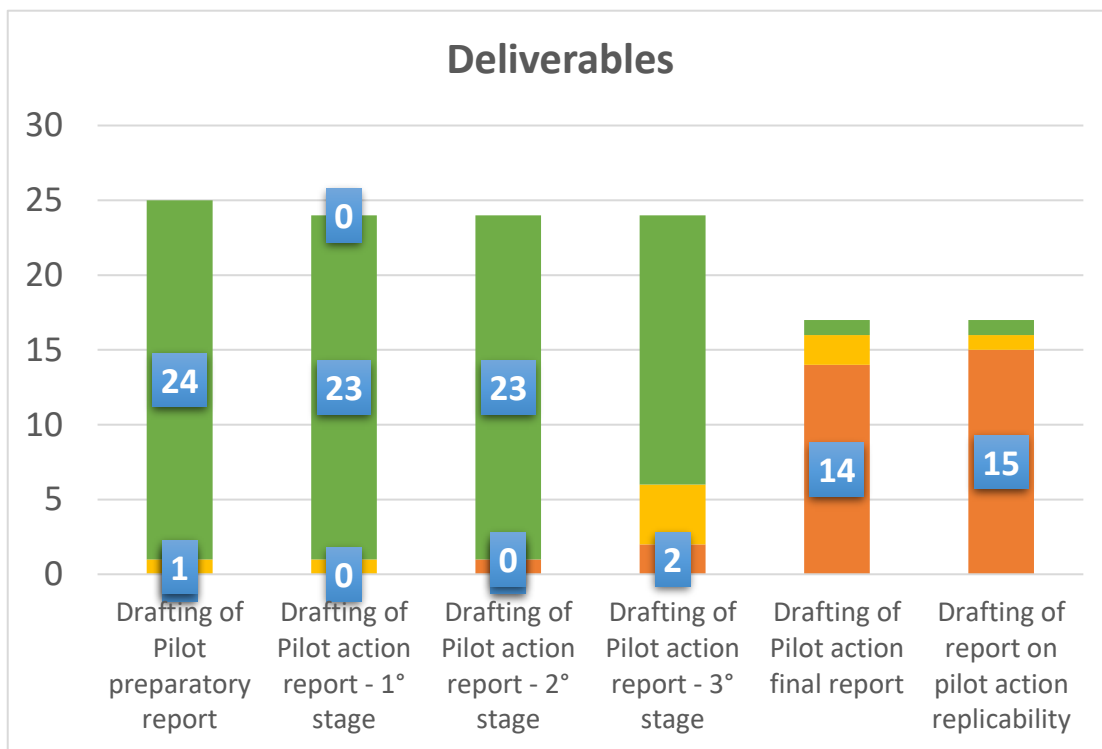


Figure 3-1 Aggregated statistic indicating the status of advancement for several milestones

3.2. Connections with the territory

In occasion of the “Pilot actions session monitoring” which took place on March 8th, 2022, partners were asked to answer to the following questions:

- What are the benefits that your initiative is bringing in the territory in which it is implemented? What are the added values expected for the territory, once it will be carried out?
- How may your initiative contribute to the overall strategy of FRAMESPORT project aimed the overall strategy to support the development of small ports?
- Please, illustrate the ongoing results if any that have been recently achieved.

While the second and the third answers provide similar information to those already inserted in the deliverables submitted by the partners, the first one provided interesting unpublished insights about connections that each PA has with the territory where it is carried out.

Obviously, each PA aims to develop small ports by definition, but this objective can be reached from different point of views. Most common reported benefits deal with tourism and port operations, but each macro-theme has its own peculiarities:

- ICT PAs aim to enhance the synergies between ports in the same area and can improve efficiency and safety of the port operations;
- E&E PAs aim to increase the sustainability of the ports and, with benefits both on tourism and on local population;
- P&M PAs are more focused on local population and stakeholders, since the action is expected to improve the quality of the area in terms of permanent interventions;
- T&K PAs target local population as well, and in particular the culture of young generations;
- Business-related is quite transversal and has common aspects with each kind of PA (those dealing with environment in particular).

3.3. General comments

There are some similarities between PAs even when they deal with different macro-themes. In almost each PA calls for tender are necessary in order to get the equipment or the expertise needed, but there could be difference in terms of advancement status: tenders may have been already concluded, can be yet to be launched, or could represent the reason of the delay for the PA advancement. The analysis of the study area is often necessary for the proper evolution of the PA and this step was already concluded in most of the cases since it is a preliminary one. Intermediate results are different according to the kind of analysis carried out. In general, PAs seems to be preparing for approaching to the most operational phase, in which the use of the equipment, the realization of a platform/app, or the organization of targeted events will make the conceptual solutions discussed so far concrete. The Table 3-1 contains comments about the PAs grouped by macro-theme, so that common aspects are highlighted.

Table 3-1 Comments grouped by PA macro-theme

Topic	Comments
ICT	<p>Most of the PAs whose macro-theme is “ICT applications and service development” have a similar general schema: first, goals and scope are defined; then research activities are performed in order to define a conceptual solution, which are or will be implemented thanks to the help of external expertise, engaged through the definition of tenders. Data collection and meetings with the stakeholders often accompany this process, in particular for those PA falling in the sub-topic “Management of port operations and services” and “Monitoring of seaside and landside port areas”. In some cases, the activities related to procurement processes for external expertise selection have already been carried on, whereas in other cases (when PPs received many offers when the PA started with delays) those activities are on the top of the to-do list. Even for those who already completed the procedure, some updates could be necessary. As the macro-theme name suggests, technological solutions such as apps, databases, and project platforms will be realized in the upcoming period. Since many PAs are tightly coupled with these kinds of technological solution, the external technical expertise is even more crucial with respect to the PAs dealing with other macro-themes. The most frequently encountered problems are the limitations related to COVID-19 when it comes to organize dissemination activities or in-presence meetings, and the delays concerning the calls for tender.</p>
E&E	<p>“Environmental and Energy aspects” PAs are quite different one to the other for what concerns the methodology and hence the advancement status, exception made for the first step of defining goals and scope of the PA. In some cases, activities carried out so far consist in events with the stakeholders, while in other it comes to perform desk or market research activities. The activities to be deployed in the upcoming period range from LCA analysis to operative actions. Problems encountered reflect the same differences: some PPs denounced that they faced problems related to the stakeholders’ fragmentation, some others reported that the complexity of the PA is linked to the complexity of the necessary equipment. Some PAs have in common the fact that the coordination of the activities with other PAs and the analysis of the replicability is explicitly mentioned.</p>
P&M	<p>All the three PAs contain in their titles the word “Master-plan” since wide areas (counties or regions) are analysed from many different points of view. Data collection is crucial in all the three cases for performing a proper analysis of the study area. For this purpose, tenders were launched when necessary. First examples of results consist</p>

	in SWOT/BOCR analyses. No specific problems were pointed out, except the difficulty in retrieving some kinds of data.
T&K	As the macro-theme name suggests, the direct contact with people and the desire of sharing the expertise knowledge characterize these PAs. For this reason, actors like touristic associations, schools, and local marinas figure in the stakeholders list. Lessons and training sessions for involving the students have been carried out both in case of young and adult students: scholars have been the primary subject of the PAs, and touristic associations have been involved as well. The same kind of activity will be carried on also in the next period. Even technological solutions such as the development of a platform are expected.
Business	The only PA whose macro-theme is “Business oriented aspects” shares some aspects with some of the E&E PAs: desk and filed research have been carried out so far for the purpose of making ports more sustainable. The approach used for the analysis and the fact that the PA is focused on the services offered by the ports remind also to P&M and ICT PAs.

4. Contributions from Project Partners

In the last sections, results are presented in a disaggregated form, as the reported contents are directly extracted from the document provided by each Project partner (PP).

4.1. ICT application and service development

Table 4.1-1 Pilot Actions of the macro theme: ICT application and service development

Macro-theme	Sub-topic	PP	PA
ICT	Harbour and navigation safety	PP3 - ASSET, PP13 - CMCC	3.3
	Management of port operations and services	LP - CORILA	LP.2
		PP3 - ASSET, PP13 - CMCC	3.2
		PP6 - AAST	6.1
		PP7 - LUUN	7.1
		PP8 - PGZ	8.1
	Monitoring of seaside and landside port areas	PP2 - ITL	2.2

	Promotion of ports' resources and territory	PP5 - ARAP	5.3
		PP10 - LUS	10.1
		PP1 - MMON	1.2
		PP2 - ITL	2.3
		PP5 - ARAP	5.2

4.1.1. Harbour and navigational safety

PA 3.3 – Development of a meteo-oceanographic forecasting system for sea shipping activities - PP3 ASSET, PP13 CMCC

Introduction

The aim of the pilot action “3.3 - Harbour and navigational safety: development of a meteo-oceanographic forecasting system for sea shipping activities” is to improve safety conditions of harbours and to reduce the carbon footprint of navigation.

It pertains to the macro theme “ICT applications and services development”.

The purpose is to develop a meteo-oceanographic forecasting system based on atmospheric forecasts and hydrodynamic forecasts and a weather routing system for small vessels (both motor and sailboats).

The specific objectives of the pilot action are:

- To develop a meteo-oceanographic service for small ports based on very high resolution and at a scale fitted for the ports areas;
- To develop a ship routing service for small vessels calling at small ports, based on meteo-oceanographic forecasts to suggest optimality route;
- To improve maritime safety at ports and the efficiency of navigation;
- To create a network of ports' stakeholders with whom plan development and prioritization of services and applications.

Activities carried out so far

The modelling activities of the meteo-oceanographic forecasting for the pilot ports are finalized and the model is running operatively, as reported in Figure 1 for port of Otranto, in Figure 2 for port of Trani and in Figure 3 for the port of Vieste. For all cases main variables provided by the systems are currents, salinity, temperature and waves. The models are available at <https://otrantocmcc.it/> for the port of Otranto and at <https://soap.oceanity.eu/> for the ports of Vieste and Trani.

At the same time, a validation of the new WRF model configuration has been completed, last tests are ongoing in order to make the model configuration operational.

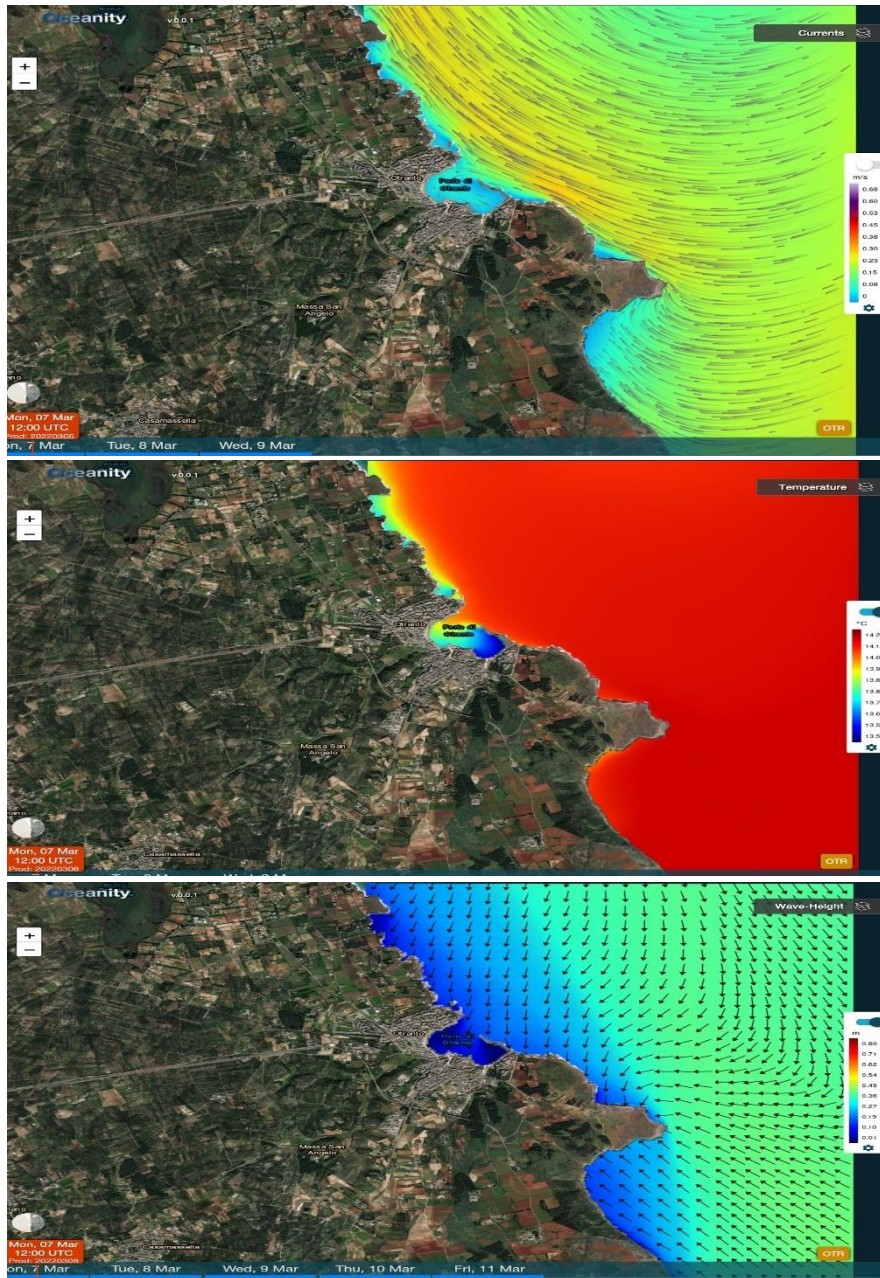


Figure 1 – Modelling results (currents, temperature and waves) for the Otranto port

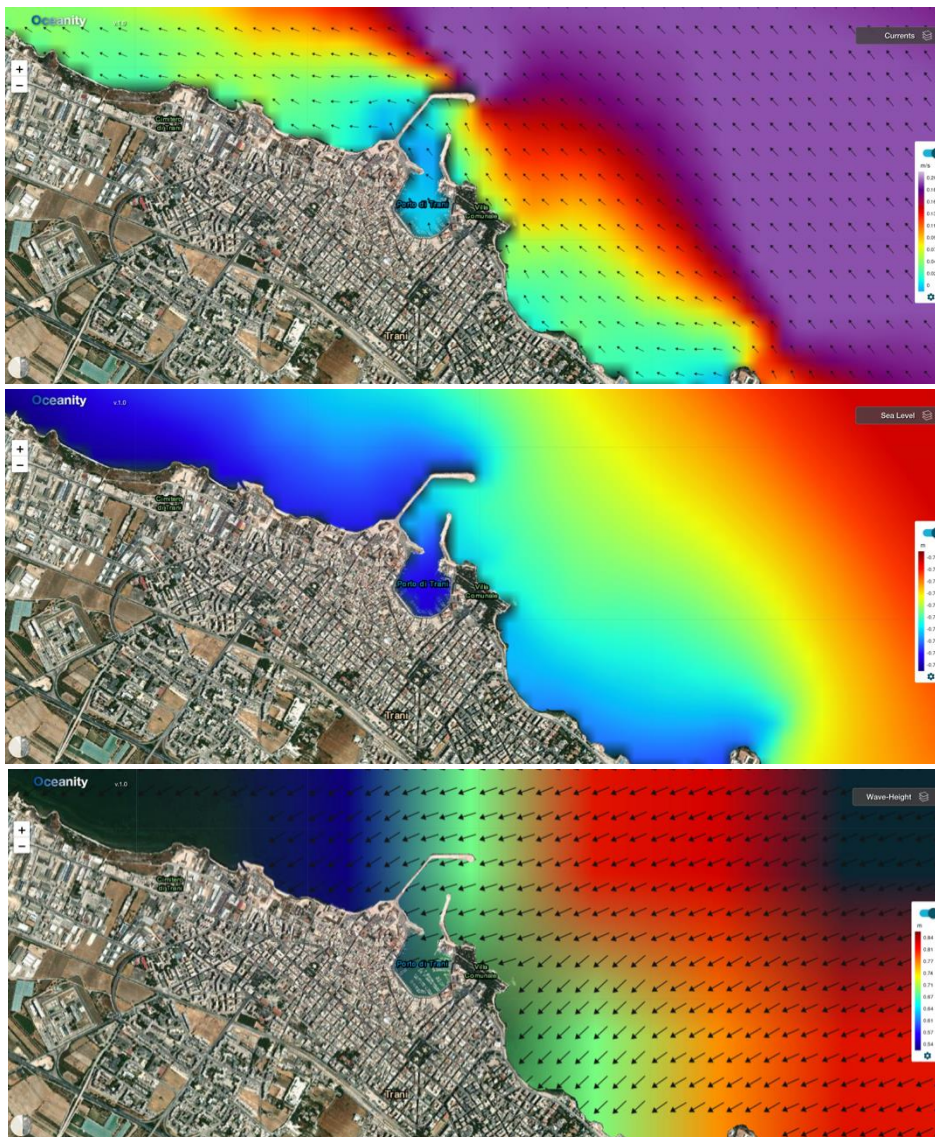


Figure 2 – Modelling results (currents, sea level and waves) for the Trani port

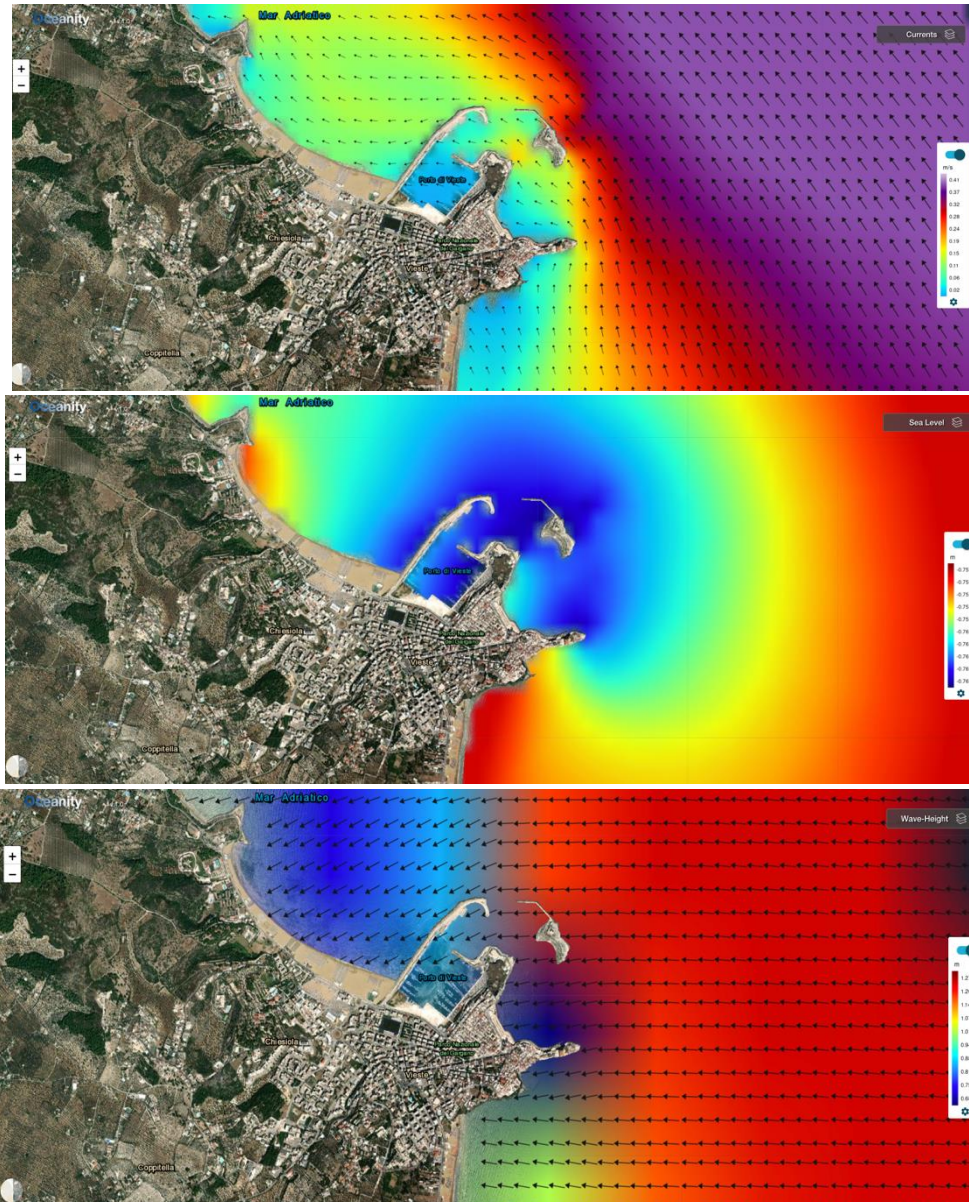


Figure 3 - Modelling results (currents, sea level and waves) for the Vieste port

Regarding the ship routing, testing and debugging of ship routing software has been carried out after finalization of model improvement. The sailboat key information to be provided in the webApp

have been also selected. Pre-operational development is instead ongoing and will need be finalized in due time.

Intermediate results achieved

Operational forecasting system at very high resolution for pilot ports, as shown in Figure 1, Figure 2 and Figure 3.

Enhanced modularization of VISIR model; preoperational developments.

Next steps

Operational implementation of the ship routing model.

Actors/Beneficiaries/Stakeholders involvement

The implementation of the pilot action takes place in different stages through the direct involvement of stakeholder such municipalities and coastal authorities. The three main ports of reference for the pilot are: Trani, Vieste and Otranto. However, it may also occur during the development of the pilot that other ports of the Apulia Region may be invited to meetings and discussions.

Stakeholders will be involved in a final face to face meeting, where the services will be presented and discussed together for the collection of inputs, and the stakeholders will be able to familiarize with the functionalities and benefits of the tool use. In the same meeting also FRAMESPORT platform will be presented, and feedback received.

Use of thematic equipment

No thematic equipment is needed for the development of the pilot. Computing facilities for the development of the service are already in house at CMCC, which has the full capability to develop the service.

Problems encountered

The delay in the ship routing part is under recover but may need additional time after March 2023.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
<i>Indicator 1</i> <i>Meetings with stakeholders</i>	<i>Number of participants</i>	<i>10-15</i>	<i>0</i>	<i>February/March 2022</i>
<i>Indicator 2</i>	<i>Number of models</i>	<i>4</i>	<i>4</i>	<i>July 2022</i>

<i>Development of meteo-oceanographic models and ship routing</i>				
Indicator 3 <i>Events</i>	<i>Number of events</i>	<i>1</i>	<i>0</i>	<i>March 2023</i>

Conclusions

This pilot intended to support port authorities with provision of meteo-oceanographic information and ship routing to improve safety conditions reduce navigation carbon footprint.

The meteo-oceanographic modelling was completed and available.

4.1.2. Management of port operations and services

LP 2 – Set of ICT tools (DSS) about the quality of service within the Programme Area to support competitiveness and sustainability of small ports - LP CORILA

Introduction

STEADFAST is a Pilot Action (PA) aiming to develop a Decision Support System (DSS) based on a common project-level ICT platform fed by a Programme Area level common supply-based database, which will be populated thanks to the proactive involvement of, and collaboration with, small ports of the whole Adriatic region. Such DSS will incorporate a set of ICT tools supporting better choices by users, private investors (companies, operators) and policymakers, thus, improving the competitiveness and sustainability of small ports in the programme area. The overall DSS and ICT tools constitute an effective pilot action supporting, on one hand, a more integrated small ports' service offering at wide geographical area (the Adriatic) and, at the same time, a better match of supply with users' needs. As such, by promoting better efficiency and effectiveness of the whole system, it provides a significant contribution to improve overall competitiveness and sustainability of small ports.

The specific objectives of this PA are as follows:

- To fully characterise the existing service offering of Adriatic small ports through a statistical inventory analysis and by exploiting the common database developed within the frame of WP3; data set coming from small ports is developed and reported with reference to the following data clusters, land-side and sea-side infrastructure supply (consisting of dimensional characteristics, core equipment and services, local amenities and access to land-side infrastructures ensuring hinterland connections); end-users' & consumers' services

(consisting of basic port services, repairing and maintenance services, environmental services, other added-value services).

- To design the STEADFAST DSS tool providing an overview of existing services available at small ports of the whole Programme area, so as to support, amongst others, choices by users before they approach a given port facility, thus facilitating the planning and scheduling of visits to tourist destinations.

Activities carried out so far

The following activities have been performed from last advancement report – greyed-out text relates to tasks executed as part of previous PA reporting:

1. Goal and scope – as well as a workplan – of the PA were defined and reported in previous PA advancement reports
2. Designed of baseline survey (to characterise the existing service offering at Adriatic small ports and the associated overall quality of service) → Performed as part of WP3
3. Data collection (through common questionnaire to Programme Area’s small ports) → Performed as part of WP4
4. Inventory analysis → a statistical analysis of data collected from small ports has been performed. Particularly, with reference to the service clusters mentioned in section 2.1, the tool provides insights into the existing level of services and facilities at small ports and within their surrounding areas.
5. Design of the STEADFAST DSS UI → the UI mock-up of STEADFAST was successfully carried out, whose summative result is condensed in the following picture.

Intermediate results achieved

Design of the STEADFAST UI was performed enabling to orchestrate and harmonise the vast information collected at Programme Area level from small ports, whilst providing a centralised informative basis meeting end users’ needs and preferences.

Next steps

The baseline data that was collected has been organised in an organic way to result in a high-quality, accurate and complete dataset characterising the actual small port offering at Programme area level, whilst ensuring that subsequent WP5 activities can follow up smoothly.

Next activity concerns the development and hosting of the STEADFAST DSS within the FRAMESPORT project portal – from which the data collected will be used and accessed from end users to organise

their (touristic) visits to destinations – which will be performed in synergy and collaboration with the LP.

Actors/Beneficiaries/Stakeholders involvement

Several small ports stakeholders have so far been involved in the PA execution process, who all contributed to designing the data model and accumulating the data basis that supports the development of the STEADFAST DSS. An additional player from the boating industry is expected to be engaged in the validation phase of the to-be-developed tool, so as to result in a bottom-up development of an industry-relevant tool for small ports.

Problems encountered

No problems encountered for the implementation of activities concerned with the PA up until now.

Conclusions

STEADFAST is a collection of standard ICT tools and applications budding upon the project-level baseline database and that will be accessed via the project-level ICT platform. It will consist of an "Adriatic portal" providing relevant map-matched information about the quality of service offered by small ports to support end-users' choices; on the other hand, STEADFAST will provide useful information and insights to help private businesses and policymakers in the Programme Area make informed decisions.

Progress was made since last reporting with regard to the delivery of the inventory analysis and the design of the STEADFAST UI mock-up, leaving aside the development/hosting of the tool in the FRAMESPORT web portal, which will be carried out during the forthcoming months thanks to the support and collaboration with key partners and stakeholders. As a result, work is currently on schedule, with major activities to be soon finalised keeping the delivery of the PA on target.

PA 3.2 – Regional ports networking and their connections: Promotion of the territory, ICT app for boat berth booking services, marine connectivity (sailboat) - PP3 ASSET

Introduction

Apulia Region, with the contribution of PP3 - ASSET and PP13 - CMCC, is working on 3 different Pilot activities: the first one (Pilot Action 3.1) is focused on the implementation of Port sustainability best-practices; the second one (Pilot Action 3.2) is focused on Regional ports networking and their connections with the promotion of the territory, the development of an ICT app for boat berth booking services and the improvement of marine connectivity; the third one (Pilot Action 3.3) is

focused on harbour and navigational safety with the development of a meteo-oceanographic forecasting system for sea shipping activities.

The aim of the pilot action “3.2 - Regional ports networking and their connections: Promotion of the territory, ICT app for boat berth booking services, marine connectivity (sailboat)” is to improve the network of regional ports from different points of view. It acts on the macro theme “ICT applications and services development”. ASSET decided to set the following objectives:

- To enhance cultural and touristic aspects of Apulia Region and to make them accessible by maritime tourists
- To improve connections among ports and the internal parts of the region
- To create an ICT application that collects booking services and technical information for all port network
- To improve maritime connectivity, also regarding sailboat activities
- To unify boat berth booking system through a unique gate to access all different booking services
- To collect data among stakeholder ensuring a bottom-up approach

In this period, ASSET continued the design phase of the Pilot Activities. In particular, ASSET contracted an external company responsible for the development of the mobile Application.

The aim of the pilot action is to improve ports connection with the “final users”, by developing a mobile App that collects booking services and technical information for all port network.

In particular, the Pilot Activity foresees the creation of an App designed to connect the various Ports of Puglia involved in the project. The App aims to promote the FRAMESPORT brand and at the same time provide information to the user such as:

- Apulian Ports
- Link to the mooring manager's website,
- Main Points of Interest for tourists,
- Meteo-marine information

Activities carried out so far

Apulia Region just finalized the collection and analysis of the data gathered by the stakeholders. After that, the external expertise has been contracted and the activities just started before summer break. ASSET had some meetings with the company responsible for the development and also the LP in order to share some ideas about the App, assuring the respect of the LP guidelines. So that the level of achievement could be considered by 45%.

Stakeholders have been involved during public meetings. We have collected information and analysed stakeholders' needs. We are defining the App content and graphics.

Intermediate results achieved

The implementation of the activities is going on and no intermediate results have been achieved.

Next steps

In the next period, we are going to finalize the development of the app.

Actors/Beneficiaries/Stakeholders involvement

The stakeholders of the pilot are the boat berth companies.

Problems encountered

The main problem encountered is the fragmentation of private stakeholder in each port; that situation affected this project pilot and we define a new strategy to build the app (gate portal).

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Indicator 1 Meetings with stakeholders	Number of participants	10-15	8	February 2022
Indicator 2 Creation of an online gate	Number of gate	1	0	March 2023
Indicator 3 Events	Number of events	2	0	April 2023

Conclusions

The project pilot activities refer to Regional Strategic Agency for the Eco-sustainable Development of the Apulia Territory's pilot action "3.2 - Regional ports networking and their connections: Promotion of the territory, ICT app for boat berth booking services, marine connectivity (sailboat)", regarding their aim at supporting an integrated and sustainable development of small ports from a

strategic perspective where ports can benefit from the realization of the cultural enhancement of Apulian territory and an online gate for booking systems.

The goal of this pilot project is the creation of an ICT system for boat berth booking collecting information from all the stakeholders involved and to improve maritime connectivity.

In general, the action foresees the development of an online gate for booking services. Now, the pilot action is in the phase of designing of the App.

PA 6.1 – Development of a prototype of a software application for the identification, booking and payment of available spots at Adriatic small ports. Testing phase at Port of Termoli - PP6 AAST

Introduction

The pilot will entail developing a prototype of a software application that will help captains of boats travelling in the Adriatic Sea identify available spots in nearby small ports/marinas and book their preferred spots in advance. This way we plan to decrease waiting times at the ports, generate additional revenue for small ports/marinas, decrease overcrowding in certain ports and maximize the use of all available space along the Adriatic coasts of Italy and Croatia. The App will collect real-time occupancy data from each spot at small ports/marinas and make it available to anyone who has access to online or mobile platforms. The app will also include an online payment system to allow captains book and pay for docking spots through the app.

The application developed during pilot will ultimately increase the efficiency of marine transport in the Adriatic Sea between Italy and Croatia and at the same time contribute to the economic development of small ports / marinas in the region. The pilot aims to establish a best practice that could be implemented to increase the communication and connectivity between small ports.

Activities carried out so far

So far, some experts have been selected and engaged. They have developed the Pilot action preparatory initiatives, a regional report on best practices, a final common understanding on priority actions and KPI, Pilot Action Preparatory Initiatives, Pilot Review Sessions on Pilot Action Advancement Reports, and they will develop the document Pilot actions resume and scale-up.

On November 17th a stakeholders' meeting has been organized in the Tourist Port of Termoli. All different stakeholders, selected experts and the organizer AAST-Termoli took part to it. The aim of the meeting was to present the project pilot action to the different stakeholders and ports of Molise region and to start creating a network among them.

At the present time the tender notice for the development of the Booking Berth App has been assigned to AFA Systems Srl. The society has presented its operational plan and a time plan, it has

taken contacts with the other providers, from AAST and other partners, and it has taken contacts with the local ports managers in order to assess their technological development.

Intermediate results achieved

The tender project presented by AFA Systems is composed of two integrated sub-projects: the app itself and a set of network services delivered on a hi-performance Wi-Fi infrastructure.

Regarding the app, its GUI (graphic user interface), intended to be used with a smartphone, has been well structured. The booking engine that will match the berths requests vs berths availability is under development.

Regarding the network services and infrastructure, a preliminary design has been outlined with a deployment plan.

Next steps

In a recent meeting, the company introduced the project to the personnel of the marina of Termoli in order to refine the project specifications and requirements with their contribution that is expected to be received by the half of October 2022.

With the marina's feedback, the app design will be tuned and its database will be filled with the marina specific data. The network infrastructure design will be completed as well, according with the precise marina docks layout (recently modified) drawings that the marina agreed to prepare.

Actors/Beneficiaries/ Stakeholders involvement

After completing the Pilot Action Preparatory Report (D5.2.1) PP6-AAST has completed the list of stakeholders that must be involved. Currently, the PP has already involved some of them, such as the three Municipalities, where the ports of Molise are located (Termoli, Campomarino, Montenero di Bisaccia), and two private businesses of the Port of Termoli (Guidotti Ships and Marinucci Yachting Club). All of them have been involved either in regional meetings or in general project meetings (e.g. FRAMESPORT, Project Targeted event, 7th-8th October 2021; Stakeholders' meeting, 17th November 2021. After the engagement of AFA systems, all the port authorities have been contacted in order to provide feedback about technological level and to set out a proper web app interface. Currently a new stakeholders' meeting is going to be organised at the end of October 22).

Problems encountered

The creation of the tender took more time than what was foreseen to define all aspects, publish and assign it.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value (Feb 22)	Time horizon for monitoring (July 21 > Feb. 22 > July 22)
Meeting with stakeholders	1 x meeting	At least 3	1	February '22
Procurement of partners	1 x partner	At least 5	5	July '22
Involved Stakeholders	1 x stakeholder	At least 20	3	February '22
Involved Marinas	1 x Marina	3	1 (Termoli)	February '22
Tourism services	1 x Service	10	0	February '22
Number of downloads	1 x Download	150	n/a	July '22
Number of users	1 x User	100	n/a	July '22
Booked berths	1 x Berth	10 x month	n/a	December '22
Users' satisfaction	Ranks	At least upper 60% of possible ranking	- n/a	December '22

Conclusions

PP6 has published the tender notice for the creation of the berth booking App which will be first tested in the port of Termoli. It took more time than what was foreseen to define and publish it. Nevertheless, the society AFA systems has started its activities and soon will present its first intermediate results. The final product and its monitoring phase will be delivered before the project's end.

PA 7.1 – Improvement of the available technologies for port management - PP7 LUUN

Introduction

The basic idea is to create a Port Management Program Platform that will provide supervision of vessels in ports managed by the Port Authority of Umag-Novigrad, i.e., management of IT and other services offered by the port authority. It would consist of several connected modules – applications, with the possibility of upgrading to new modules - functionalities together with their data exchange with other systems. In particular, the idea is to make it possible to monitor the ports and the berths through video surveillance cameras, for the facilitation of checking the berths availability, of the landing procedure and of the payment for the service.

The idea is to improve the available technologies for the port management and to improve the services necessary for a more efficient management of small ports. The new services that will be developed, will stand side by side with the existing applications (nIS and CIMIS) to further improve the port services. Once developed, the system will facilitate the work of the port authorities and make the service more accessible and comfortable for customers, since it will improve the communication with the port guard and will allow to check the availability of berths.

The port guard will benefit too, because they will be able to immediately receive all the data relating to the vessel.

The port guard activities (acceptance, billing, etc.) would take place through the use of mobile phones that would permit:

1. printing of the invoices via portable Bluetooth mini thermal printer,
2. sending the invoices to the customers in a digital format via the application, in which case the customer could have the possibility to pay for the berth via WEB services.

To help the landing of boats and to improve the service, the port guards will hopefully also be equipped with dinghies with electric motors that are ecologically acceptable (they do not pollute and are not noisy). During the implementation of the pilot project, the possibility of paying the navigation and the tourist tax via the application will also be considered.

The application could also give information on the possibility of accessing other services (booking restaurants, bike rental, various trips in the hinterland, etc.).

Activities carried out so far

Port Authority of Umag-Novigrad has so far hired an external expert for the purpose of preparing a document containing all of the fundamental needs for the project pilot. The experts helped to formulate the existing state and future needs through market research and the development of the project solution.

Following this step, thorough market research has been done in order to prepare for next steps and them being public procurement procedures for the needed equipment and further pilot advancement.

Project documentation with cost estimates was prepared on the basis of which the projects were divided into three main areas which are the basis for the implementation of procurement procedures. These areas include procurement of: Video surveillance system; Application development, upgrade of current systems and adaption of information system presently used by Port authority of Umag-Novigrad; and final area is berth monitoring system accompanied by service providing cabinets.

For all three abovementioned points, the procurement procedure was initiated, where calls were made to three addresses for each point and a link was published on the official website of the port authority through which anyone could apply for the tender offer. For areas 2 and 3, the procedure has been completed. The works started in a timely manner, but due to the difficult economic situation caused by COVID and the war in Ukraine, the companies requested an extension of the contract. Both of the companies asked for the extension since they are connected and work on the one segment of pilot implementation is linked to the other one as they function together. For the video surveillance part of the procurement procedure, the same situation with COVID and the war in Ukraine impacted the market prices, thus the public procurement procedure has to be repeated.

Intermediate results achieved

Two out of three procurement procedures for the current phase of the project pilot are being worked on at the moment. Some difficulties were encountered due to economic crises caused by coronavirus and war in Ukraine which greatly impacted the market and prices. The companies work under the extension of the contract for additional 3 months. Procurement procedure for the video surveillance system has to be repeated, and the cost estimate for the electric-powered vessel with its battery is nearing completion.

Next steps

Next activities in the line include completion and finalization of the abovementioned contracts and consequently the implementation of acquired equipment. The repeated public procurement for the video surveillance and the procurement procedure of the electric-powered vessel should begin shortly.

Actors/Beneficiaries/ Stakeholders involvement

Several representatives of beneficiaries, stakeholders and general public have been present in the premises of Umag city hall in September 2021 when the Port authority of Umag-Novigrad held a presentation familiarizing the people present with goals and aims of a pilot and project in general.

Use of the equipment

The graphic representation of the port of Umag with berths in the port zones is done while the testing of 10 sensors for checking the presence of vessels is in progress. The company that does berth monitoring system accompanied by the service providing cabinets are in contact with the company that does the application development, upgrade of the current systems, and adaption of

information system presently used by the Port Authority of Umag - Novigrad because they use data from their database for a complete graphic display.

Problems encountered

No major problems have been encountered except from the fact that procurement procedure of video surveillance equipment needs to be repeated as the price oscillation on the markets caused a spike and that the other companies needed an extension also due to the economic situations caused by the COVID and war in Ukraine.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Public procurement for external experts	Procurement procedure	2x	1x	April 2021 – June 2021
Drafting of the project solution document	Project solution document	1x	1x	June 2021
Public procurement for thematic equipment	Procurement procedure	4x	2x	September 2021 – October 2022
Implementation activities	Implementation	4x	2x	June 2022 – September 2022
Dissemination activities	Meetings / Presentations	2x	1x	September 2021 – October 2022

Conclusions

For concluding this pilot action report, it is worth mentioning that the Port Authority of Umag-Novigrad is being successful in its efforts regarding this project pilot activity. Firstly, the partner managed to find the appropriate experts that helped them formulate the project solution document that reflected on current state and future needs in ports. After thorough market research has been done, it was decided that the easiest way to get everything was to arrange and announce 4 procurement processes. Some difficulties were encountered during the procurement procedures. Two of them are finished and are now in the implementation phase, one has to be repeated and one will start soon. After the previous steps are fully completed, gradual implementation of acquired equipment is on next where the equipment is put to test and all the things regarding the implementation are being adjusted to the desired area. No problems or delays are expected.

PA 8.1 – Improvement of the small ports monitoring system (mooring management, billing system, analysis of customer habits) - PP8 PGZ

Introduction

This pilot project will deliver an innovative and functional Small port smart monitoring system with an comprehensive database and register which includes all necessary data for more efficient and effective small port management, thus forming a cornerstone for further development and service improvement.

Implementing innovative e-solutions for port services smart management with development of innovative ICT tools (macro-theme) aimed at facilitating e-government as well as the whole set of initiatives and bureaucracies to be processed thus ensuring the smart management of services and initiatives.

As mentioned in the introductory part, pilot project will deliver an innovative and functional Small port smart monitoring system with an comprehensive and adaptable real time database and register which includes all necessary data for more efficient and effective small port management.

The established system will provide managers and port authorities with an overview of the berth which will lead to easier visibility and managing of berth maintenance requirements thus enhancing the registration and simplifying the calculation process, making everything much more faster. With just one click on the database, users will be provided with all necessary information regarding berths, users, vessels details, in real time.

The aim of pilot action is to enable more efficient and effective small port management with the use of modern information and communication technologies.

Activities carried out so far

Following the conducted procurement procedure for the preparation of project-technical documentation for pilot actions, assigned external experts produced documentation which consists of analysis of current situation in defined small port, 5 proposed variants of conceptual solutions, SWOT analysis, risk analysis, conceptual project and D.5.2.1. Pilot action preparatory report.

The documentation has been delivered in two parts: 1st part of delivery was including analysis of current situation in defined small port, 5 proposed variants of conceptual solutions, SWOT analysis and risk analysis. Based on this documents, Primorje-Gorski Kotar County selected optimal conceptual solution for the implementation in the small port. Selected solution has been elaborated through produced conceptual project which will be baseline for the procurement of thematic equipment. The conceptual project and the D.5.2.1. Pilot action preparatory report make 2nd part of delivery.

Primorje-Gorski Kotar County prepared the public procurement tender documentation and annexes for the pilot actions implementation which includes installation of thematic equipment and software. After the preparation of all necessary documents and realization of internal procedures, public procurement tender has been published and offers have been collected and evaluated.

Following the conducted procurement procedure for smart port monitoring system within the "FRAMESPORT" project, contract with external supplier has been signed and the implementation started.

Intermediate results achieved

The intermediate results achieved so far are related to the:

- production of pilot preparatory studies which consist of:
 - Analysis of the current situation which includes analysis of defined location of small port and the analysis of current small port monitoring system
 - 5 proposed variants of conceptual solutions
 - SWOT analysis of proposed conceptual solutions
 - Risk analysis of the implementation of conceptual solutions
 - Conceptual project which represents a more detailed elaboration of one conceptual solution according to the choice of the Primorje-Gorski Kotar County
 - D.5.2.1. Pilot action preparatory report
- public procurement tender documentation for smart port monitoring system within the "FRAMESPORT" project
- contract regarding the procurement of smart port monitoring system within the "FRAMESPORT" project

Next steps

Following the signature on contract for smart port monitoring system within the “FRAMESPORT” project procurement, following activities have to be implemented:

- preparatory activities
- preparation of main engineering project for infrastructure
- preparation of a technical protection system project
- demarcation of spaces under video surveillance
- development and testing of application solutions
- construction works
- structural cabling
- equipment with assembly
- finalization activities
 - preparation of documentation of the implemented system
 - system commissioning, real-time testing with parameter correction and staff training
 - handover of the system with all necessary documentation

Actors/Beneficiaries/Stakeholders involvement

As relevant stakeholders County Port Authority of Rab and external experts engaged for the preparation of the project-technical documentation were involved. County Port Authority of Rab is a non-profit legal entity tasked with administration, construction and use of ports open for public traffic of county and local relevance in the area of autonomous local units on the island of Rab under whose jurisdiction is also the Port of Rab where the pilot action is planned to be implemented.

Use of the equipment

Upon the preparation of project-technical documentation Primorje- Gorski Kotar has started with the preparation of public procurement documentation for the thematic equipment which will include installation of hardware and software: AI cameras, bluetooth beacons and bluetooth gateways integrated with the software which will be developed and programmed to collect and process the data. Installed equipment will improve monitoring of the communal berths of small port and the movement of the registered vessels.

The contract regarding the procurement of thematic equipment has been signed on August 29th 2022 with the deadline for delivery and installation on 31st December 2022.

Problems encountered

The contract with external experts who are engaged for the preparation of pilot preparatory studies had to be prolonged due to COVID-19 situation (accelerated spread of infection among the employees caused delays in the work) but this situation has not afflicted the achieving of planned results.

Additionally, the public procurement process preparation and contracting for thematic equipment lasted longer than expected due to the complexity of technical specifications of equipment.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (June '21/ Dec. '21/ June '22)
Final version of conceptual project	Document	1	1	February '22
Installation of thematic equipment	Project Handover Document	1	..	December '22
...

Conclusions

As already mentioned in previous chapters, Primorje-Gorski Kotar County is planning to implement innovative and functional Small port smart monitoring system with an comprehensive real time database and register which includes all necessary data for more efficient and effective small port management, thus forming a cornerstone for further development and service improvement.

The pilot action development started with the production of project-technical documentation which provide wide set of information and details which need to be taken into consideration before the implementation of optimal technical solution, namely installation of thematic equipment. Following the conducted procurement procedure for the preparation of project-technical documentation for pilot actions, assigned external experts produced documentation which consists of analysis of current situation in defined small port, 5 proposed variants of conceptual solutions, SWOT analysis, risk analysis, conceptual project and D.5.2.1. Pilot action preparatory report.

Upon the selection of optimal technical solution and its further elaboration through the conceptual project, Primorje- Gorski Kotar conducted the public procurement procedure and signed the contract for the thematic equipment.

Thematic equipment will include installation of hardware and software: AI cameras, bluetooth beacons and bluetooth gateways integrated with the software which will be developed and programmed to collect and process the data. Installed equipment will improve monitoring of the communal berths of small port and the movement of the registered vessels.

This pilot project aims to standardize, develop and implement "smart" solutions in the Adriatic ports. The selected Port will make these solutions more accessible to end users as well as more efficient in their functions, safer and more attractive for the development of economic activities. In the future this Small port smart monitoring system project will be put into practice and will be allowed to be used in other ports after the end of the project and will contribute to encouraging the implementation of new smart innovation in ports in Croatia and Italy, making port intelligent and multi-modal hubs.

4.1.3. Monitoring of seaside and landside port areas

PA 2.2 – Development of monitoring system for port operations and public events in the canal port's area - PP2 ITL

Introduction

The pilot activities consist in the design, implementation and monitoring of an experimental action for the monitoring of the seaside and land-side areas of Rimini's Canal Port. The objective of the action is to test the use of surveillance technologies (e.g. cameras, sensors, drones, etc.) to monitor the safe performance of port operations on the water and on the land side. The most suitable technology will be defined through the involvement of the two categories of stakeholders:

- Institutional stakeholders and primary users of the port who were part of the process of co-creation and identification of the needs of the pilot action;
- Subjects using the port services that have a role as observers in the pilot action.

This general objective can be translated into a series of specific objectives with the aim of defining in detail the corrective actions and selecting the most appropriate tools to carry out an effective site monitoring action:

- Increase site security
- Limit social decline phenomena and poor hygiene of the site
- Improve surveillance at public events
- Respect for the rules.

The pilot action, in line with the FRAMESPORT objectives, aims to improve the quality, safety and environmental sustainability of maritime service transport. As far as security is concerned, the expected results are:

- the installation of new devices to monitor the most frequented port areas;
- increased monitoring quality;
- increase the number of monitored operations;
- increase the perception of security of stakeholders and port visitors
- simplify the supervision of major events taking place in the port area.

As regards the analysis of the technological solutions to be adopted for the implementation of a monitoring system, the following options were considered:

- Installation of new cameras: in terms of surveillance and monitoring of outdoor areas, the most used technology is that of cameras. The devices have undergone technological evolutions and currently the offer on the market is very varied.
- Acquisition of a video analysis system to be used on existing cameras: video analysis consists of a set of software modules capable of processing the images acquired by the cameras to obtain a description of the video content. Video analysis systems have evolved a lot in recent years, both thanks to artificial intelligence techniques and because the large amount of images acquired can hardly be viewed in full and it is therefore necessary to resort to such solutions to obtain the so-called metadata, that is, summary information in relation to specific predefined events.

The methodology adopted is based on the following five steps:

- definition of functional requirements
- definition of non-functional requirements
- comparison of the solutions identified
- sharing information with institutional stakeholders
- choice of technological solution

Activities carried out so far

The previous period was dedicated to the definition of a call for tender for the acquisition of thematic equipment. The activities were focused to the definition of technical specifications for the tender. The Rimini municipality was involved in the process in order to obtain as a result, the integration with the existent video surveillance system. The interaction with the Rimini Municipality, in particular the Technical Office regarded:

- The acquisition of the technical material of the existent video surveillance system, including plans, technical specification of cameras and software, location of existent equipments.
- The acquisition of information about the cabling plan and ongoing works to extend the optic fiber cabling.
- The acquisition of information regarding the data gathering after the equipment installation, in order to meet the KPI levels. This information was used to prepare the tender specification, whose extract is in the annex in their final version. The annex is in Italian.

Intermediate results achieved

The reached result is the preparation of the tender specification that will be issued as request for quotation for a selected set of suppliers.

Next steps

Next step in the 6 months period will be:

1. Issue of the call for tender for the acquisition of thematic equipment
2. monitoring of the supply
3. go-live of the solution
4. monitoring of results achieved

The next steps include the monitoring of the supply and the verification of the results, according the FRAMESPORT project needs. The Municipality of Rimini will be strongly involved in those tasks.

Actors/Beneficiaries/Stakeholders involvement

The design of the pilot action required an initial phase of analysis aimed at identifying the stakeholders active in the operational-management scenario of the Port, after which a classification criterion for relevance was defined to involve the most relevant stakeholders. In defining the priority index, the following were considered: correlation with the themes of the pilot action and the decision-making weight in the operational-management aspects. The involvement of the Municipality of Rimini has been identified as a priority.

Use of the equipment

The thematic equipment will be provided as result of activity of Call for tender that is ongoing.

Problems encountered

No particular problem has been encountered in the period January-June 2022.

Monitoring activities

Indicator	Unit of Measure	Target value	Achieved value	Time horizon for monitoring
Number of equipment installed	#	3	0	10/2022
Number of operations monitored	#	50	0	10/2022-12/2022
Number of different	#	3	0	10/2022-12/2022

activities type monitored				
Percentage of coverage of identified area to monitor	%	80%	0	Nov-22

Conclusions

In the document has been presented the advancement of the activities carried on for the Pilot Action task and it describes the objectives of the pilot action and the context in which it will be implemented, the expected results, the instrumentation used, and a description of the activities carried out in the framework of Pilot Action n° 2 in the period January-June 2022. The pilot activities consist in the design, implementation and monitoring of an experimental action for the monitoring of the sea-side and land-side areas of Rimini's Canal Port. The objective of the action is to test the use of surveillance technologies (e.g. cameras, sensors, drones, etc.) to monitor the safe performance of port operations on the water and on the land side. The document describes the status of the activities executed and the activities to be carried on in the next period.

PA 5.3 – Creation of Innovation Lab to promote development and planning of small ports along the Adriatic coasts: ICT Platform for monitoring and supervision of freights/passenger - PP5 ARAP

Introduction

Arap constituted the Innovation LAB, an instrument to promote development and planning of small ports along the Adriatic coasts. The purpose is to engage and coordinate citizens, artists, students, governmental agencies, businesses, and community organizations in Abruzzo to enhance public awareness, to intercept and to valorise different competences and experiences, to stimulate measures and actions aimed at recovering small port efficiency and attractiveness. Innovation Lab is articulated in four sessions: a) energy efficiency and pollution reduction; b) valorisation of “port space”; c) ICT solutions d) training/informative paths.

Activities carried out so far

- a) Energy efficiency and pollution reduction
 First internal data recognition and on-site inspections have been concluded. On 19th May 2022 Arap concluded the comparative selection procedure. The expert is developing the report on sustainability in the ports of S. Salvo and Vasto. By the end of September report will be finalized.

- b) Valorization of “port space”
No event to be highlighted took place in the monitoring period.
- c) ICT solutions
Arap concluded first internal definition of ICT application’s main characteristics, key factors, advantages, technical parameters. On 26th May Arap concluded the comparative selection procedure. Infoteam company obtained the assignment for the realization of the ICT platform. This activity will be completed by the end of 2022.
- d) Training/informative paths
Training meetings involved the students of the Mattioli D'Acquisto school in San Salvo. The main purpose of the activity was to discover the ancient crafts and places of traditional fishing and maritime trade for develop sustainable and historically based models for new proposals for fishing and activities for the use of marine resources.

The goals can be resumed as:

- know the ancient economic and social history of the reference territory (the ancient Histonium) through documents and finds;
- know the transformations of the coastal landscape of the reference area through documents, direct observations and archaeological remains;
- get to know the most representative trades of seafaring still alive;
- know the potential of sustainable and innovative tourism (ancient paths, vegetable gardens and overflow).

Here are listed the involved places:

- School;
- Archaeological Park of the Quadrilateral of San Salvo;
- Vasto Marina beach;
- Submerged Archaeological Park of Vasto Marina;
- Regional Nature Reserve of Punta Aderci;
- Ancient Paths that descend from the historic center of Vasto to the sea;
- Vegetable gardens and overflows.

Intermediate results achieved

- Energy efficiency and pollution reduction: First internal data recognition and on-site inspections have been concluded. On 19th May 2022 Arap concluded the comparative selection procedure.
- ICT solutions: On 26th May Arap concluded the comparative selection procedure. Infoteam company obtained the assignment for the realization of the ICT platform.

- Training/informative paths:
2nd March
- Preparation lessons at school;
- Excursions along the ancient paths that lead from the historic center of Vasto to the sea;
- Excursion to the Punta Penna lighthouse.
6th April
- Preparation lessons at school;
- Excursion to the regional natural reserve of Punta aderici;
5th May
- Preparation lessons at school;
- Visit to the small fishing stations and to an overflow.
25th May
- Preparation lessons at school
- Visit to the vegetable gardens and the ancient fish ponds distributed along the eastern ridge of Vasto;
8th June
- Excursion to the remains of the Submerged Archaeological Park of Vasto Marina;
- Presentation of the work done to the public

Next steps

- Energy efficiency and pollution reduction: Finalization of the report on sustainability
- Valorisation of “port space”: organization of animation and dissemination events
- ICT solutions: Finalization of Ict platform for monitoring and supervision of freights/passengers
- Training/informative paths: the PA is concluded.

Actors/Beneficiaries/ Stakeholders involvement

Stakeholder	Role	Contribution to the projects
Regione Abruzzo	Local authority	It will support the promotion of the initiative on the territory
Polo liceale mattioli, Vasto	School	They will be involved in the information / training activities provided by the pilot
Parsifal association	Association	They will be involved in the information / training activities provided by the pilot
Punta Penna Port	Local authorities	They will be involved in the training activity
Vasto maritime agency	Local authorities	They will be involved in the training activity
“Local Trabocco”	Tourist local operator	They will be involved in the training activity
Cogecstre cooperative	Association	They will be involved in the training activity
San Salvo Port	Local authorities	It is one of the ports identified for the realization of the pilot
Vasto Port	Local authorities	It is one of the ports identified for the realization of the pilot
Vasto municipality	Local authority	It will support the promotion of the initiative on the territory

Problems encountered

Currently no problems have been detected in the implementation phase of the activities themselves.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Involvement of stakeholders	heterogeneity of the	at least 3	10	July 22

	involved stakeholders				
training sessions	Number of training sessions	At least 5	5		July 22
report	Number of report	At least 1	0		July 22
software	Number of software	At least 1	0		July 22

Conclusions

Arap is developing the sub-activities foreseen in the innovation lab: two assignment procedure were concluded (ICT PLATFORM FOR MONITORING AND SUPERVISION OF FREIGHTS/PASSENGERS AND FEASIBILITY STUDY FOR POSSIBLE ECO-SUSTAINABILITY SOLUTIONS TO REDUCE THE ENVIRONMENTAL IMPACT OF PORT) and now the experts are finalizing the outputs. Training activities in the schools were successfully concluded. No additional events were organized in this period, but others will be organized in the next months.

PA 10.1 – Feasibility Studies on alternative moorings for ship and on the use of electric ro-ro passenger ships - PP10 LUS

Introduction

Study on alternative methods of mooring for ships (RO-RO and cruisers) and electricity supply for RO-RO ships: the study will define the possibilities of applying alternative methods of mooring for ships in order to increase the level of operability and safety in the port of Šibenik. Furthermore, the study will analyse and describe the possibilities of introducing RO-RO services to the islands of the Šibenik archipelago using electrically powered boats. It is necessary to analyse the possibilities and necessary steps for the implementation of the use of alternative fuels that have a lower impact on the environment in order to ensure sustainability. The technologies and lessons learned from the study, as well as the pronounced advantages of applying new technologies, are applicable in all ports in Croatia and Italy and there should be a possibility that they will become the standard in the Adriatic. The study is the first step and basis for future investments and the application of these technologies.

Activities carried out so far

Šibenik port authority created the initial documents such as preparatory report and first and second pilot action report. As mentioned in the latter paragraph, the researching phase took a little bit more time than initially planned.

Intermediate results achieved

Šibenik port authority focused most of its initial time in this project pilot phase on the thorough market researching activities while focusing on delivering the best possible product. As the theme of the pilot requires vast knowledge and expertise from various fields, researching activities require a little bit more time than initially planned thus the occurred delay. Among the other things, the project partner suffered an internal reorganization and reduction of the number of people employed on the project.

Next steps

Following activities require announcement of a public tendering procedure for the external expertise for the creation of the study on alternative methods of moorings for ships while also incorporating electricity supply for RO-RO ships. The study will also analyse the possibility of introducing electrically powered boats for servicing the RO-RO lines in Šibenik archipelago. First thing the external expert has to do is create a draft version of the document which is followed by the review of project partner and relevant stakeholders. The step after that includes the appreciation of suggestions and creation of a revised version of the study.

Actors/Beneficiaries/ Stakeholders involvement

Stakeholders weren't yet included in the project pilot but will most likely participate during the presentation activities once the study draft is nearing completion and/or is completed.

Problems encountered

No major problems were encountered during the duration of the project pilot activities. Minor setbacks were seen in the prolongation of the research activities and deployment of the public procurement procedure. The port authority went through an internal reorganization where several employees left, and some new ones joined in thus resulting in a slight delay in regards to the original timeline.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Procurement process for external expertise	Procurement procedure	1	0	- October 2022 - January-February 2023
Draft of the Feasibility study	Document draft	1	0	December 2022
Final version of the Feasibility study	Final document	1	0	March 2023

Conclusions

The Šibenik port authority's pilot consists of two parts. One is creation of the Feasibility study on alternative methods of mooring for ships (RO-RO and cruisers) and electricity supply for RO-RO ships while the other part of the project pilot plan is focused on the possibility of forecasting of possible geographical spread of pollution through buoys equipped with sensoric components.

The first part of project pilot regarding the feasibility study is in the stages of conducting market research which took a little longer due to multitude of information and needed expertise in various fields. One tendering procedure has been done but that refers to the technical and administrative help on the project leaving one more procurement procedure for the external experts for the creation of feasibility study. This procedure will be scheduled in the 3rd quarter of this year i.e., in a few months leaving enough time for completion in regards to the overall project duration.

4.1.4. Promotion of ports' resources and territory

PA 1.2 – Promotion of the territory linked to Nautical clubs through development of extended reality application - PP1 MMON

Introduction

The objective of the project is to strengthen the operational capacity of sailing and nautical centers through the development of tourism attractiveness and promotion in the territory of the Gulf of Panzano through an AR Augmented Reality system. The challenge that the pilot action involves is the inclusion of sailing and nautical centres in the circuit of tourist activities in the area, in order to create a web portal for the promotion of cultural and natural elements to integrate the services and opportunities of the territory of Monfalcone.

Now the pilot action is in the last phase of definition of the contents for the realization of the public procedure for the entrusting of the activities.

Regarding the macro – theme ICT application and service development Municipality of Monfalcone has planned to focus on new technologies and promotion of knowledge of the territory.

The small ports and sailing centers of the coastal area of Monfalcone are very developed but do not have internal connections to the tourist/cultural and natural attractions of the area.

The intention is to create an ICT Tools that develops a series of routes that connect the coastal area and small sailing centers to the main cultural and natural elements.

This tool will be called “Monfalcone Experience” and will be divided in a first digital part (a web portal with all contents and information) and a physical series of totem visible in sailing centers and cultural sites of Monfalcone.

The specific objectives of the pilot action are:

- Implement the attractiveness of the Sailing and Nautical Centres by making available to users the possibility to take advantage of the tourism/environmental opportunities offered by the territory;
- Facilitate the users of the sailing and nautical centers in the knowledge and therefore use of historical, environmental and tourist goods and services in the area through the activation of an AR Augmented Reality system.

Activities carried out so far

At present, the pilot has been published for the public procedure for awarding the activities.

Intermediate results achieved

The activities have not yet started, and no intermediate results have been achieved.

Next steps

Once the tender has been concluded, the following actions will be related to the realization of the activities:

- Collection of informative and documentary contents (texts, images, video realization)
- Construction of the experience portal and structuring of the internal thematic routes, with the inclusion of multimedia content created and/or implemented
- Realization and positioning of the new physical totems that will constitute the path of the experiential itineraries on site.

Actors/Beneficiaries/Stakeholders involvement

The subjects involved will be the sailing centers with mainly tourist use in which will be placed a totem touch screen that allows the first contact and knowledge of the system. Beneficiaries of the system of tourism promotion - cultural territory will be the users of sailing and nautical centers and the entire user of the territory.

Problems encountered

Delay due to the necessary administrative procedure and controls.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Number of touristic sites involved	Number of sites	15/20	NA	Jul. '22
Number of events organized	Events	2	NA	Jul. '22
Creation of key Points	Number of KP realized for touristic sites	20/25	NA	Jul. '22
Number of app/web users	Number of users	150	NA	Feb. '22

Conclusions

The pilot action "promotion of the territory linked to nautical clubs through development of extended reality application ", under the macro theme " ICT applications and services development " has as its objective to strengthen of operational capacity of sailing and nautical centers in order to develop a system of enhancement and promotion in the territory of the Gulf of Panzano through a system AR Augmented Reality.

The action provides for the development of a series of integrated interventions between them:

- Creation of a series of "paths/experience" in AR that will include all the sailing and nautical centers and the entire tourist/cultural area of the city;
- Creation and activation of a web space or "web portal for the presentation of content", which will give access to a real video guide of the territory to allow through mobile devices to be able to access the paths inserted precisely in a special website.

At present, the pilot action is ready for the public procedure of entrusting to the expert staff of the activities for the implementation of the project.

PA 2.3 – Realization of initiatives for the promotion of the canal port activities, especially during the low touristic season - PP2 ITL

Introduction

The main objective of the pilot action concerns the **promotion of the Canal Port of Rimini through the organization and implementation of a dedicated exhibition event** serving as a sort of open day to showcase the different activities that are carried out within the Port, in order to strengthen its attractiveness.

Such event will take place between winter and spring, in order to contribute to the promotion of the Port – and of the whole territory of Rimini – even in those seasons when the flow of tourist is notably lower. In addition, this event is also aimed at the local population, who often see the Port in a detached way and does not realize its full potential.

To achieve such aim, a **close engagement of stakeholders** and Port's operators will be strictly necessary, both during the planning and implementing phases of the pilot action, in order to ensure a tight connection with the territory and its needs.

Activities carried out so far

To have a better overview of the context in which the Canal Port of Rimini operates, preliminary analyses on the main socio-economic data of the city were realized, as well as on the touristic offer of the Municipality and the flows of tourists visiting the area. From what emerged, Rimini presents

a rich touristic offer that includes both hotel establishments and non-hotel facilities. In addition, almost half of these establishments are open all year, thus allowing tourists to be hosted in the city even in the colder months.

Nevertheless, the touristic flows still observe a seasonal trend, with the summer being the most popular period to visit Rimini for both Italian and foreign tourists. Despite the impact of the Covid-19 pandemic, 2021 and the first months of 2022 already marked a slight recovery, with numbers related to both Italian and foreign visitors that are growing again, but still observing the above-mentioned seasonal trend.

The international fairs and exhibitions that are annually held in Rimini provide another potential reason for visiting this territory; despite being distributed throughout the year, a particular lack of such events can be emphasized for the months of April and December.

Concerning the Canal Porto of Rimini, several macro-areas and functions can be identified, each serving a specific purpose that is important for the whole community. However, the value and significance – both in economic terms but also from a cultural and historical standpoint – of such activities is not often emphasized enough and remain unknown to both citizens and tourists visiting the city. Hence the aim of this pilot action, whose successful outcome requires the involvement of the many different stakeholders that operate daily within the Port's area.

Intermediate results achieved

Stakeholders' consultation is currently underway:

- Identification of the area and the days of the event
- Identification of the activities that will be illustrated during the event
- We are working closely with the Port's Operator and the policy makers
- Realization of a public tender for the identification of an economic operator that will organise the event

Example of activities to be carried out:

- Exhibition of fishing vessel
- Historic photos of Canal Port
- Dissemination of the profession of axe masters
- Ancient fishing methods
- Institutional meeting for the proposal of twinning of Rimini and a Croatia city port

Next steps

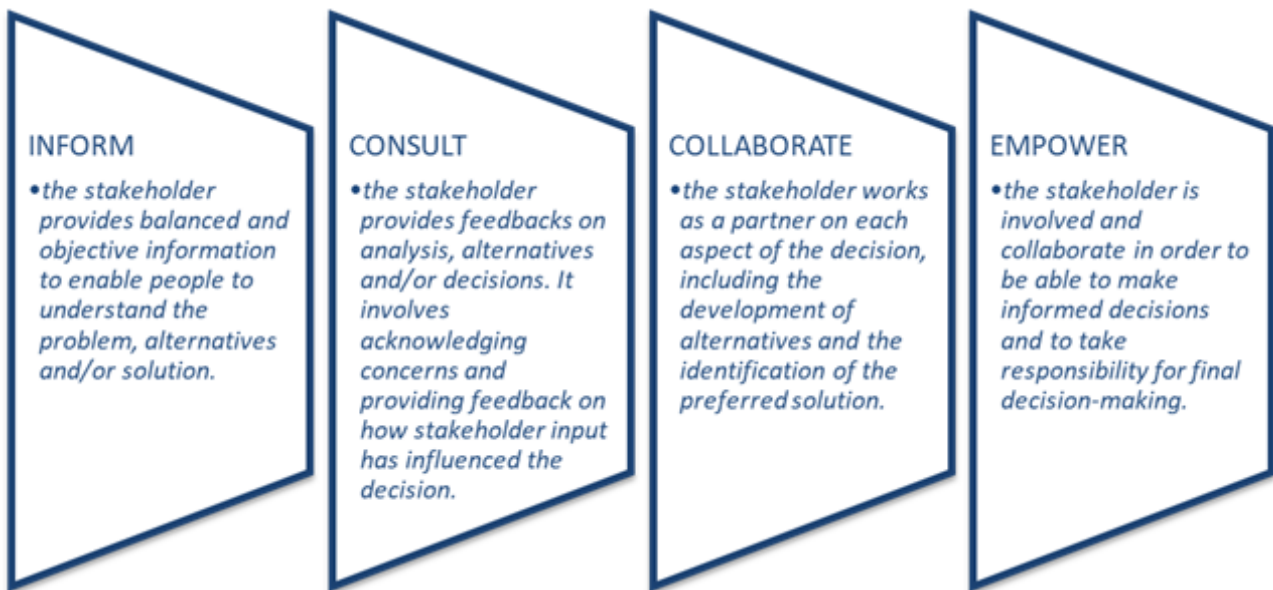
- Confirmation of the area and the days of the event
- Confirmation of the activities that will be illustrated during the event
- Finalization of the public tender for the identification of an economic operator that will organise the event
- Promotion of the administrative procedure among potential operators interested in the pilot activity
- Realization of a promotional campaign that involves the Municipality of Rimini and its channels such as social media accounts.

Actors/Beneficiaries/ Stakeholders involvement

The inputs of relevant stakeholders are essential from the early stages due to the need of developing a range of activities that would be aligned with the specific needs of the operators, in order to precisely represent the activities that are based in the Port's area and the added value that these produce for the whole community of Rimini.

In this purpose, the following mapping of stakeholders provides an overview on the role and contribution to the project of the key actors that have been involved since the early stages of the pilot action in its design and preparation.

The participation of stakeholders in the project will differ according to the degree of involvement. Below are the four degrees of stakeholders' involvement that define their engagement and contribution to the pilot action hereby described.



In this section a list of the main stakeholders involved in the preliminary phase of the pilot action is provided. In particular, the following table presents the stakeholders' name, their role and their contribution to the project.

Stakeholder	Role	Contribution to the projects
Comune di Rimini – Municipality of Rimini	Empower (associated partner)	Authorization of the final event to be organized in the Canal Port of Rimini, validation of activities to be implemented, support during the preparation of the necessary documents related to security.
Consulta del Porto di Rimini – Council of Port operators	Empower	Provision of support during the design and organization of the event, including specific indications on the activities to be implemented during the event.
Consorzio del Porto di Rimini – Consortium of Port commercial operators	Empower	Provision of support during the design and organization of the event, including specific indications on the activities to be implemented during the event.
Club Nautico Rimini – Nautical club Rimini	Collaborate	Participation to dedicated meetings and provision of feedbacks and suggestion on the event and foreseen activities.

Cooperativa Lavoratori del Mare – Sea workers’ cooperative	Collaborate	Participation to dedicated meetings and provision of feedbacks and suggestion on the event and foreseen activities.
Capitaneria del Porto di Rimini – Rimini coast guard	Collaborate	Participation to dedicated meetings and provision of feedbacks and suggestion on the event and foreseen activities.
Marina di Rimini	Collaborate	Participation to dedicated meetings and provision of feedbacks and suggestion on the event and foreseen activities.
Circolo Velico Riminese – Sailing club	Collaborate	Participation to dedicated meetings and provision of feedbacks and suggestion on the event and foreseen activities.
Yacht Club Rimini – Sailing club	Consult	Provision of information, if necessary, and of feedbacks and suggestions.
Traghetto Vittoria – Ferryboat	Consult	Provision of information, if necessary, and of feedbacks and suggestions.
Imarr – Agricultural Cooperative Society	Consult	Provision of information, if necessary, and of feedbacks and suggestions.
Cantiere Gori – Shipyard	Consult	Provision of information, if necessary, and of feedbacks and suggestions.
Cantiere Navale Dell’Adriatico Di Fabio E Marco Tosi S.N.C. – Shipyard	Consult	Provision of information, if necessary, and of feedbacks and suggestions.
Carlini Roberto & Stefano S.r.l – Shipyard	Consult	Provision of information, if necessary, and of feedbacks and suggestions.
Acqua di mare – Agricultural Cooperative Society	Consult	Provision of information, if necessary, and of feedbacks and suggestions.

A total of 15 stakeholders have been closely mapped and involved. However, the degree of involvement of different actors also varied on the basis of their influence and interest in the pilot activity and the FRAMESPORT project overall.

Problems encountered

- Difficulty to decide which activities should be prioritized among those that will be proposed by the stakeholders

- Necessity to identify a specific economic operator that will be in charge of the organization of the event
- Difficulty in the engagement of the Municipality of Rimini and the Council of the Port Operators, two essential actors in the design phase of the pilot

Monitoring activities

A list of indicators has been devised with the aim of properly monitor the development and implementation of the pilot action, in order to ensure a seamless flow of activities and a proper use of resources made available through the Framesport project.

The following table provides an overview of such indicators, including the unit of measure, the target value proposed and the most appropriate time horizon for monitoring the achievement of such indicator.

Indicator	Unit of measure	Target value	Time horizon for monitoring (June '21/ Dec. '21/ June '22)
<i>Number of stakeholders involved in the planning of PA</i>	<i>Number</i>	<i>8</i>	<i>March 23</i>
<i>Number of meetings organized with stakeholders</i>	<i>Number</i>	<i>6</i>	<i>March 23</i>
<i>Identification of economic operator in charge of the organization of the event</i>	<i>Percentage</i>	<i>100%</i>	<i>February 23</i>
<i>Identification of activities to be developed through the budget provided by FRAMESPORT</i>	<i>Percentage</i>	<i>100%</i>	<i>February 23</i>
<i>Approximate number of citizens and general public involved in the final promotional event</i>	<i>Number</i>	<i>200</i>	<i>April 23</i>

Conclusions

The Pilot Action 2.3 “*Realization of initiatives for the promotion of the canal port activities*”, implemented by PP2 – ITL Foundation, is aimed at promoting the Canal Port of Rimini through the organization of a dedicated exhibition event to showcase the activities and operators that are based within the Port’s area, in order to better display their value and increase the presence of citizens and tourists even during the low touristic seasons.

From the preliminary analysis of on the main socio-economic data of the city, it emerged that Rimini presents a rich touristic offer that includes both hotel establishments and non-hotel facilities. In addition, almost half of these establishments are open all year, thus allowing tourists to be hosted in the city even in the colder months. Nevertheless, the touristic flows still observe a seasonal trend, with the summer being the most popular period to visit Rimini for both Italian and foreign tourists.

Therefore, the aim of this pilot is to emphasize the activities developed in the Canal Port of Rimini, which is very important, in economic terms but also from a cultural and historical standpoint, for the whole community.

A relevant role will be covered by Municipality of Rimini, whose approval of the final idea for the promotional event will be absolutely essential, as well as by the Council of the Port Operators, who is a body that gathers and represent the interests of all the stakeholders that are related to the Canal Port of Rimini, such as associations, nautical clubs, shipyards, businesses and so on. Both actors will be of fundamental importance during the early stages of design of the pilot action, but also for the actual implementation of the activities that will be planned as part of the promotional event.

As for the potential weaknesses and threats, the main ones are definitely related to the risk of a low engagement of both stakeholders (especially during the design phase) and the general public during the actual implementation of the promotional event. Some mitigation measures – from the organization of in person meeting with stakeholders to the involvement of the Municipality in a promotional campaign for the event – have been devised for both risks, in order to ensure a successful outcome of the pilot action and an adequate use of the budget offered by the ITL Foundation in the framework of the FRAMESPORT project.

PA 5.2 – Creation of Innovation Lab to promote development and planning of small ports along the Adriatic coasts: Port attractiveness - PP5 ARAP

A description of this pilot action is included in the paragraph: PA 5.3 – Creation of Innovation Lab to promote development and planning of small ports along the Adriatic coasts: ICT Platform for monitoring and supervision of freights/passenger - PP5 ARAP.

Introduction

Arap constituted the Innovation LAB, an instrument to promote development and planning of small ports along the Adriatic coasts.

The purpose is to engage and coordinate citizens, artists, students, governmental agencies, businesses and community organizations in Abruzzo to enhance public awareness, to intercept and to valorise different competences and experiences, to stimulate measures and actions aimed at recovering small port efficiency and attractiveness. Innovation Lab is articulated in four sessions: a) energy efficiency and pollution reduction; b) valorization of “port space” c) ICT solutions d) training/informative paths.

Activities carried out so far

1. energy efficiency and pollution reduction

First internal data recognition and on site inspections have been concluded. On 19th May 2022 Arap concluded the comparative selection procedure. The expert is developing the report on sustainability in the ports of S. Salvo and Vasto. By the end of September report will be finalized

2. valorization of “port space” no event in the monitoring period

3. ICT solutions

Arap concluded first internal definition of ICT application’s main characteristics, key factors, advantages, technical parameters. On 26th May Arap concluded the comparative selection procedure. Infoteam company obtained the assignment for the realization of the ICT platform. This activity will be completed by the end of 2022

4. training/informative paths

Training meetings with the students of the Mattioli D'Acquisto school in San Salvo.

Purpose:

Discover the ancient crafts and places of traditional fishing and maritime trade for develop sustainable and historically based models for new proposals for fishing and activities for the use of marine resources.

Intermediate results achieved

- **energy efficiency and pollution reduction**

Results: First internal data recognition and on site inspections have been concluded. On 19th May 2022 Arap concluded the comparative selection procedure

- **valorization of “port space”**

- **ICT solutions**

On 26th May Arap concluded the comparative selection procedure. Infoteam company obtained the assignment for the realization of the ICT platform

- **training/informative paths**

Arap will complete the training activities, as specified below:

2nd March

- Preparation lessons at school;
- Excursions along the ancient paths that lead from the historic center of Vasto to the sea;
- Excursion to the Punta Penna lighthouse.

6th April

- Preparation lessons at school;
- Excursion to the regional natural reserve of Punta aderci;

5th May

- Preparation lessons at school;
- Visit to the small fishing stations and to an overflow.

25th May

- Preparation lessons at school
- Visit to the vegetable gardens and the ancient fish ponds distributed along the eastern ridge of Vasto;

8th June

- Excursion to the remains of the Submerged Archaeological Park of Vasto Marina;
- Presentation of the work done to the public

Next steps

- 1. energy efficiency and pollution reduction**
Finalization of the report on sustainability
- 2. valorization of "port space"**
organization of animation and dissemination events
- 3. ICT solutions**
Finalization of Ict platform for monitoring and supervision of freights/passengers
- 4. training/informative paths**
This action is concluded

Problems encountered

Currently no problems have been detected in the implementation phase of the activities themselves

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Involvement of stakeholders	etherogeneity of the involved stakholders	at least 3	10	July 22
training sessions	Number of training sessions	At least 5	5	July 22
report	Number of report	Al least 1	0	July 22
software	Number of software	At least 1	0	July 22

Conclusions

Arap is developing the sub-activities foreseen in the innovation lab: two assignment procedure were concluded (ICT PLATFORM FOR MONITORING AND SUPERVISION OF FREIGHTS/PASSENGERS AND FEASIBILITY STUDY FOR POSSIBLE ECO-SUSTAINABILITY SOLUTIONS TO REDUCE THE ENVIRONMENTAL IMPACT OF PORT) and now the experts are finalizing the outputs. Training activities in the schools were successfully concluded. No additional events were organized in this period, but others will be organized in the next months.

4.1.5. Comments

Despite of different sub-topics, the theme of the digitalisation is recurrent in the PAs of the macro-theme "ICT applications and service development". Also, the structures of the PAs have some points in common: stakeholders need to be involved since the early stages of the pilot action for better addressing the fields of application of the solution to be developed. Then, external expertise becomes necessary due to the highly qualified contributions required for the development of the apps or for related activities. This last step is often the bottleneck for the PA, since the time required for the whole tender procedure is sometimes long due to the difficulties in the requirements definition or due to bureaucratic issues. In about half the cases, this step can be considered as concluded, while in the others the procedure has begun but not ended yet.

For what concerns the subtopic “Management of port operations and services”, the theme of the data becomes extremely crucial, and databases have been already built or are in phase of definition. In addition to the slowings related to the tender procedures, the most frequently encountered problems are the limitations related to COVID-19.

4.2. Environment and energy aspects

Table 4.2-1 Pilot Actions of the macro theme: Environment and energy aspects

Macro-theme	PP	PA
E&E	LP - CORILA	LP.1
	PP3 - ASSET, PP13 - CMCC	3.1
	PP4 - SVIM	4.1
	PP4 - SVIM	4.2
	PP5 - ARAP	5.1
	PP10 - LUS	10.2

LP 1 – Development of an Ecolabel criteria proposal for small ports to be submitted to the EU Ecolabelling Board (EUEB) - LP CORILA

Introduction

The small ports have a key role in the transportation and hospitality industries and can become one of the drivers of the socio-economic development of the Adriatic basin. However, they have significant environmental impacts mainly related to energy, water and waste management. For this reason, developing requirements and guidelines for their operations is of strategic importance in order to make small ports work in a more sustainable manner. A way to do so is developing a European Ecolabel.

The objective of this pilot project is developing an Ecolabel criteria proposal for small ports. The requirements and guidelines for small ports are going to be developed via a Life Cycle Assessment (LCA) study. Two Italian small ports and two Croatians ones have been analysed to perform the study and delineate the guidelines and criteria. These criteria has also been defined with the support of international recognised standards such as the Gold Anchor and the Ecolabel for touristic services.

The aim of the pilot project is developing an Ecolabel criteria and requirements proposal for small ports to be submitted to the EU Ecolabelling Board (EUEB).

Activities carried out so far

1. Literature review: analysis of academic publications, national and international regulations on port and touristic activities sustainable management.
2. Goal and scope: Definition of the objective, focus and system boundaries of the project.

3. Stakeholder involvements: Involvement of two Italian small ports that are representative of the Adriatic basin environment.
4. Inventory analysis: Gathering of the data needed for the LCA study. Visit the small ports to understand how they operate and to collect the required information to scientifically analyse their life cycle.
5. Impact assessment: Calculation of the environmental impacts of the life cycle according to the selected impact categories (e.g. global warming potential, ecotoxicity, resource depletion, water usage...).
6. LCA report: Report that presents the result of the LCA study, the way it was conducted, the environmental impacts and their sources, and opportunities of improvement.
7. Coordination with Project Partners (PP): collection of the outcomes and experiences from the various pilot projects of the FRAMESPORT initiative to gather valuable know-how, tools and methodologies that can be adopted to further improve the Ecolabel requirements. Assomarina will also be involved in this project in order to gather their suggestions on how to improve the Ecolabel proposal.
8. Draft on Ecolabel requirements: Creation of the draft on the Ecolabel requirement and guidelines.

Intermediate results achieved

The LCA study and report have been realised thanks to the involvement of two Italian small ports and two Croatians ones. These small ports provided data about their resource and energy consumptions throughout their life cycle to assess the environmental impacts related to the marinas daily activities. This, together with the analysis of international recognised standards and the outcome of the other pilot projects, have allowed defining the minimum and excellence criteria for the Ecolabel. In addition, the documentation to submit the Ecolabel draft has started to be filled.

Next steps

Submission of the aforementioned draft to the JRC (Joint Research Center) to get their feedback and create the final version of the Ecolabel requirements, which then will be submitted to the EU Ecolabelling Board (EUEB).

Problems encountered

The problems encountered are related to involving the 4 aforementioned small ports. It was a long and complicated process to get the support of these small ports, but eventually the team was able to get their support and gather valuable data about their resource and energy consumptions.

The team is also experiencing problems in finding reliable and update data about the size and features of the small ports market in the whole European context. This is required information to complete the application form for presenting an Ecolabel proposal. The support of the small ports and other actors of this industry are useful in gathering this kind of information.

Monitoring activities

A Gantt and a project management approach will be adopted to monitor the pilot project and assure that all the activities are completed on time.

Conclusions

Small port can become a valuable driver of the socio-economic development of the Adriatic basin, but their practices and environmental performances can be improved to make them more sustainable, attractive and performant in the future. One of the ways to do so is via developing an Ecolabel, a set of guidelines that allows improving and certifying the operations of small ports, making them more sustainable and less harmful for the environment. A set of “minimum” criteria has been developed to obtain the Ecolabel certification and a set of “excellence” criteria has been defined to mark the small port as excellent from a sustainability perspective.

The LCA methodology has been adopted to perform the study and develop the criteria and guidelines. This methodology assures the identification of the environmental hot-spots, main environmental impacts, and opportunities for improvement. Two Italian and two Croatians small ports have been involved in the project to gather data about small port management. The result of the LCA study have been integrated with information coming from internationally recognised standards, and the experience, know-how, tools, and methodologies developed by the other pilot project of the FRAMESPORT to create a feasible, concrete and realistic set of criteria for the Ecolabel proposal.

Once the Ecolabel documentation will be created, it will be submitted to JRC to get their feedback and create the final version of the Ecolabel requirements, which then will be submitted to the EU Ecolabelling Board (EUEB).

PA 3.1 – Implementation of Port sustainability best-practices - PP3 ASSET

Introduction

Apulia Region, with the contribution of PP3 - ASSET and PP13 - CMCC, is working on 3 different Pilot activities: the first one (Pilot Action 3.1) is focused on the implementation of Port sustainability best-practices; the second one (Pilot Action 3.2) is focused on Regional ports networking and their connections with the promotion of the territory, the development of an ICT app for boat berth booking services and the improvement of marine connectivity; the third one (Pilot Action 3.3) is focused on harbour and navigational safety with the development of a meteo-oceanographic forecasting system for sea shipping activities.

The aim of the pilot action “3.1 - Implementation of port sustainability best-practices” is to improve port conditions from a touristic point of view. It acts on the macro theme “Environment and energy aspects”. ASSET decided to set the following objectives:

- To increase citizenship and tourist awareness about the territory by a sensitization campaign
- To reduce emissions and waste from port operations
- To collect existing services to be offered to tourists
- To inform tourists about cultural sites to be visited (knowledge of our territory)
- To collect the effective needs of the port community and the involved stakeholders within the co-design approach supported by the submission of a questionnaire
- To provide free plastic-free kits to be distributed in the three pilot ports
- To promote a big change in attitude on the theme of environmental sustainability
- Collection of tourist information with the ports as starting points makes the whole area more attractive

In this period, ASSET continued the design phase of the Pilot Activities. In particular, ASSET contracted an external company responsible for the:

- Sensitization campaign;
- Pilot Promotion;
- Production of the plastic-free kits to be distributed in the three pilot ports;
- Promotion of the change in attitude on the theme of environmental sustainability.

The aim of the pilot action is to improve ports conditions by touristic point of view.

The purpose is to realize best practices (plastic free) and information campaign in three Apulian ports (Vieste, Trani, Otranto) reducing emissions and waste from port operations and to collect all the existing services to be offered to the tourists. The pilot project will contemplate the supply of a plastic free kit. Branded Plastic Free Kits will be produced, by the end of April and distributed in the three Pilot Ports during a tailored event. The 400 kits will be made with materials that respect the principles of environmental sustainability, such as:

- N. 1 thermal bottle

- N. 1 package of biodegradable and compostable dishes
- 1 kit of cutlery, fork, knife, spoon, towel
- N. 1 organic cotton t-shirt
- N. 1 100% cotton bag
- N. 1 Bioplastic cup

Activities carried out so far

Apulia Region just finalized the collection and analysis of the data gathered by the stakeholders. After that, the external expertise has been contracted and the activities just started before summer break. At the moment, some drafts of the plastic-free kit have been produced and shared internally. So that the level of achievement could be considered by 50%.

Stakeholders have been involved during public meetings. ASSET collected information and analysed stakeholders' needs. ASSET is defining the plastic free set to be distributed in the three pilot ports.

Intermediate results achieved

The implementation of the activities is going on and no intermediate results have been achieved.

Next steps

In the next period, we are going to realize and distribute the plastic free kit, on the basis of the stakeholder consultation.

Actors/Beneficiaries/Stakeholders involvement

The stakeholders of the pilot are the public entities (municipalities and coastal authorities) that manage touristic ports and private companies.

Problems encountered

The main problem encountered is the fragmentation of private stakeholder in each port; that situation didn't affect so much the project for what regards this pilot.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Indicator 1		10-15	8	February 2022

Meetings with stakeholders	Number of participants			
Indicator 2 Creation of a kit to be distributed	Number of kits	50	0	April 2023
Indicator 3 Events	Number of events	2	0	April 2023

Conclusions

The project pilot activities refer to Regional Strategic Agency for the Eco-sustainable Development of the Apulia Territory's pilot action "3.1 - Implementation of port sustainability best-practices", regarding their aim at supporting an integrated and sustainable development of small ports from a strategic perspective where ports can benefit from the realization of best practices (plastic free) and information campaign in three Apulian ports.

The goal of this pilot action is the reduction of emissions and waste from port operations and to collect all the existing services to be offered to the tourists.

In general, the action foresees the development of a demonstrative kit to be spread during the planned events. Now, the pilot action is in the design phase, then the already selected external expertise will produce and distribute all the kits in the pilot ports.

PA 4.1 and 4.2 – Sustainable and local mobility interventions (ex. electric bus and bike services) - PP4 SVIM

The pilot actions 4.1 and 4.2, dedicated to smart mobility solutions, were concluded in 2021 and they will be objected to the feasibility study Report for the implementation of this solution in similar contexts of the Adriatic coast (*Report 5.4 - Pilot actions resume and scale-up*).

PA 5.1 – Creation of Innovation Lab to promote development and planning of small ports along the Adriatic coasts: environmental impact - PP5 ARAP

A description of this pilot action is included in the paragraph: PA 5.3 – Creation of Innovation Lab to promote development and planning of small ports along the Adriatic coasts: ICT Platform for monitoring and supervision of freights/passenger - PP5 ARAP.

PA 10.2 – Testing IT system for the forecast of possible geographical dispersion of the pollutants in case of accident - PP10 LUS

Introduction

This is actually the second part of the project pilot action in charge of PP10. It is focused on the forecasts of possible geographical spread of pollution: buoys with sensors will be installed and an IT tool for predicting possible geographical spread of pollution will be tested. The Adriatic is a very sensitive area, and its protection is a priority for all regions. In case of pollution, the installed system will enable Šibenik Port Authority to predict the geographical spread of pollution and to react properly, which results in benefits for the entire Adriatic coast area.

Activities carried out so far

Activities carried out so far include market research for the appropriate equipment capable of positioning Šibenik port authority on the map of environmentally friendly area due to the fact that they want to secure a solution which cares about the environmental surroundings, longevity and sustainability of marine and coastal transport sectors.

Intermediate results achieved

Similarly, to the first part of the Šibenik port authority's pilot, this part is also still in the phase of thorough market research due to the complexity and specifics of the sensors. The market research phase takes a bit of more time due to logistic components of desired equipment and high modularity. The tender procedure has been prepared and the final remarks with stakeholders are being in progress.

Next steps

Next activities include announcement of public tendering procedure for the adequate equipment, running the equipment through variations of simulation tests ensuring that the product will be in perfect working order and preparing it for the full and final deployment.

Actors/Beneficiaries/Stakeholder involvement

Stakeholders were involved into the preparation of the tender procedure in order to ensure adequate conditions for geographical positioning of the equipment.

Use of the equipment

Buoys with sensors for pollution detection, as well as underwater and air drones.

Problems encountered

No problems are expected to occur in the near future nor it is expected that if anything happens it will impact the course of project implementation.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Procurement procedure for the equipment	Tendering procedure	1	0	July 2022 – September 2022
Simulation of different environmental conditions	Simulation tests	1	0	December 2022
Final deployment of the working product	Working product	1	0	February 2023.

Conclusions

The purpose of this second part of the Šibenik port authority's pilot is acquisition of equipment capable of forecasting possible geographical dispersion of pollutants in case on marine accidents. The market researching phase incorporates a huge task of finding the best solution possible, thus the slight prolongation of this phase. Following the finalization of the procurement for the needed equipment, testings' will be scheduled to assure calibration and smaller tweaks are adequately addressed and the deployment will be in its full capacity.

4.2.1. Comments

A couple of PAs in the field of "Environment and energy aspects" have already ended due to their seasonality, while in other cases the situation does not differ too much from the PAS of the previous

macro-theme. The involvement of the stakeholders is crucial as in the previous macro-theme, but the main difference is that the tenders are needed for obtaining physical material and equipment rather than technological expertise. Also in this macro-theme, slowings in the tender procedure may cause slowings in the PAs development.

4.3. Spatial planning and management

Table 4.3-1 Pilot Actions of the macro theme: Spatial planning and management

Macro-theme	PP	PA
P&M	PP2 - ITL	2.1
	PP4 - SVIM	4.3
	PP9 - ZLUZ	9.1
	PP14-LUSE	14.1

PA 2.1 – Development of Master Plan for the development of a regional-level port system in Emilia-Romagna region - Project proposal for the renewal of Rimini canal Port - PP2 ITL

Introduction

The activities of the FRAMESPORT project aim at supporting the global and sustainable growth of small ports in the Adriatic Sea. The long-term strategy of the project foresees the identification of priority issues to be promoted for the experimentation of new solutions aimed at a sustainable development of small ports, enhancing the socio-economic role of coastal areas.

This report summarises the key points that led to the outline of the project proposal, which aims to create an area that integrates with its urban context and highlights its currently undervalued characteristics of historical value.

The main objectives of the project can be summarised in the following points:

- Restoring hydraulic safety conditions;
- Connect the already redeveloped areas at the waterfront;
- Qualify existing facilities and services;
- To implement the connection between the Port and the XXV Aprile Park, as well as between the two banks of the canal.

In particular, the project proposal focuses on the following points:

- Identification of the elevation level of the docks;
- Study of the accesses to the quays;
- Study of the public spaces to be integrated to increase the attractiveness of the area;

- Study of the technological systems to be applied to the project.

This pilot action reports the analyses carried out for the preparation of a project proposal for the redevelopment, enhancement and enhancement of services and infrastructures of the Rimini canal. Taking into account the aspects of the port with a strong landscape, production and tourist value and the environmental, infrastructural and settlement conditions, analysed in the previous deliverables, in this phase the outcomes of the project proposal developed on the basis of the urban and morphological characteristics of Rimini's Canal Port and the needs that emerged from the dialogue with the stakeholders and the previous analysis phases are reported.

Activities carried out so far

The preliminary analysis was addressed in seven different activities, covering different scales and different themes, that are basically related to the seven topics identified in the previous deliverable D.5.3.1 (1° pilot action advancement session), as listed below:

- Analysis of the existing institutional, regulatory, and environmental framework of the functional pole;
- Analysis of the urban, territorial, and landscape system;
- Analysis of the relations between the port, the city, and the neighbouring territories;
- Analysis of the existing heritage context;
- Analysis of the existing functions and services with particular reference to ICT services;
- Mapping of the socio-economic and cultural context;
- Analysis of the historic and cultural values.

Each one was the subject of research activity, desk analysis, surveys, and stakeholders' consultation. Most of the data were collected through the web sources, but the consultation with the stakeholders was essential to identify the most critical issues to consider in shaping the Pilot action activities aimed at the renovation of the area. In the months of May and June 2021, the first meetings with the main involved stakeholders were held. In particular, the stakeholders consulted so far are the following:

- Municipality of Rimini
- Sea Workers' Cooperative
- ARP AE

A first consultation event took place with the technicians of the Municipality of Rimini (Ing. Messina and Ing. Della Valle), on 18th May 2021. During this meeting, the Municipality shared the recent urban regeneration works carried out in the Canal Port area and the ongoing project initiatives. Moreover, it expressed some criticalities and potentialities of the area, in order to identify possible

strategies of intervention and enhancement of the same. Finally, the Municipality shared some documents and graphic design elaborations (for example, related to the project of the new “Parco del Mare”).

At the end of this preliminary phase, an internal report was prepared for the FRAMESPORT consortium, presenting what emerged from the analysis of the 7 activities described above with a description of 8 macro-areas.

In Phase 2 the analysis for the identification of criticalities and potentials and the research of the indicators for the analysis and monitoring of urban quality took place. The most significant topics of this phase are the following:

- SWOT Analysis (Strengths - Weaknesses - Opportunities - Threats) based on the results of the preliminary analysis delivered in the Phase 1;
- Graphic tables summarizing the potential and criticality of the Porto Canale area;
- In-depth analysis of the criticalities identified by the analyzes and surveys;
- Data collection to identify a set of significant indicators for the assessment of the urban and infrastructural quality of the Porto Canale area;
- Analysis of the data collected and identification of a proper set of indicators;
- BOCR analysis (Benefits - Opportunities - Costs - Risks) based on the selected set of indicators;
- Identification of the priority scale of the interventions to be carried out for the redevelopment of the Porto Canale area.
- Elaboration of project concepts to be discussed with the Stakeholders involved.

In this phase, the contribution of the Municipality of Rimini was of fundamental importance, which actively supported the analysis phase by providing all the material necessary to conduct the analysis, in particular project files, shapefiles for the GIS and support for regulatory issues.

In the Phase 3 the outcomes of the previous phases were collected and synthesised into a design proposal that takes into account the urban context and co-design activities derived from the dialogue with stakeholders.

In particular, this phase involved the following activities:

- Identification of the elevation level of the docks;
- Study of the accesses to the quays;
- Study of the public spaces to be integrated to increase the attractiveness of the area;
- Study of the technological systems to be applied to the project;
- drafting master plans and project boards.

At this stage, the key meetings for co-design in collaboration with stakeholders were all held in presence and were:

- On 31th January 2022: a live consultation event took place with the technicians of the Municipality of Rimini (Ing. Messina and Ing. Della Valle) and Councillor Mattia Morolli to illustrate the progress of the Pilot action and agree on an intervention strategy focused on the functions of public spaces;
- On 28th April 2022: a live consultation event took place with the technicians of the Municipality of Rimini (Ing. Messina and Ing. Della Valle) and Region – Civil Protection (Cevoli, Taballini, Sarti) to identify a dock elevation level that would meet the project needs and comply with the hydraulic requirements of the canal;
- On 30th June 2022: online meeting with the technicians of the Municipality of Rimini (Ing. Messina and Ing. Dellavalle).

Intermediate results achieved

The project proposal focuses on raising the docks, which was identified during the analysis and discussion with stakeholders as a priority element on which to intervene to improve the urban quality of Rimini's Canal Port area.

Downstream of Ponte della Resistenza the quays have already been recently renewed by the Municipality of Rimini. In that section, the docks are never lower than 1.20m above sea level and are not normally flooded as is the case with the section upstream of the Ponte della Resistenza bridge.

For this reason, the design proposal focused on the quays between the Tiberius Bridge and the Ponte della Resistenza bridge.

The initial phase of the project therefore focused on the study of access to the quays, in order to resolve the critical access points where it is necessary to remove - or at least mitigate - architectural barriers to encourage the use of the quays. Subsequently, functions were identified to be placed in the area for the benefit of the community.

The following elements have been identified which, if appropriately included in this section of the Canal Port, would increase the inflow of visitors:

- Video Mapping on the walls of Borgo San Giuliano;
- Playground within the Don Luigi Sturzo Gardens;
- Green docks;
- Aromatic garden at Via Madonna della Scala;
- Calisthenics park along Via Sinistra del Porto;
- Container bar along Via Destra del Porto;

- Temporary exhibition spaces;
- Redesign of the Don Luigi Sturzo Gardens with the shaping of a new square;
- Temporary pop up shops between the Ponte dei Mille and the Ponte di Tiberio.

Next steps

The next activities to be done are the following:

- Presentation of the final Project to the Stakeholders and finalisation of details;
- Implementation of the proposed activities (funded by the Municipality of Rimini);
- Monitoring of the effectiveness of the Pilot Action 1 outcomes;
- Dissemination of the obtained results of Pilot Action 1 activities.

Problems encountered

- Difficulties in identifying an appropriate quay elevation
- Identification of public functions to be located above the docks
- Architecturally valuable works limiting design (historical constraints)
- Impossibility of passage under the Ponte dei Mille due to the raising of the quaysides
- Continuity of the cycle path beyond Borgo San Giuliano along Via Sinistra del Porto

Use of the equipment

- CAD tools: For the creation of graphic layouts of the urban area, they were used CAD software such as AutoCAD in combination with graphics software such as Adobe Pack;
- Google Earth: For the realization of perspective views and graphics, images from Google Earth were used;
- Enscape: For the creation of renderings it was used the Enscape software, plug-in for Sketch-Up;
- Survey photos: For the study of issues at critical junctions and for the realisation of renderings, photographs taken during the surveys were used.

Actors/Beneficiaries/Stakeholders involvement

Meeting date	Mode	Participants
4 May 2021	Online	Municipality of Rimini Sailing Club Consult Port Operators ITL CIRI
18 May 2021	In presence	Municipality of Rimini ITL CIRI
29 July 2021	In presence	Municipality of Rimini CIRI
5 October 2021	In presence	Municipality of Rimini Civil Protection STPC CIRI
31 January 2022	In presence	Municipality of Rimini ITL CIRI
28 April 2022	In presence	Municipality of Rimini Region – Civil Protection CIRI
30 June 2022	In presence	Municipality of Rimini ITL CIRI

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (June '21/ Dec. '21/ June '22)
Key Activities analyzed/ key activities identified	percentage	100%	100%	June '21
Number of internal reports	number	2	2	Dec. '21
Number of meta-projects design documents	number	2	2	Dec. '21
Number of technical report	number	1	1 (Draft)	June '22 December '22
Number of definitive design documents	number	2	2 (Draft)	June '22 December '22
Number of stakeholders involved/number of stakeholders identified	percentage	100%	70%	June '22
Dissemination activities	number	2	ongoing	June'22 December '22

Conclusions

The activities of the "FRAMESPORT" project are aimed at supporting the sustainable holistic growth of the smaller ports in the Adriatic Sea. This "FRAMESPORT" advancement report covers the planning and design phase of the activities foreseen for the redevelopment of the area. The design solutions proposed in this report aim to create an area that integrates perfectly with the urban context in which it is located, highlighting the characteristics of historical value that are currently undervalued.

Following the analysis carried out in Phase 2 of the project, it was shown that the interventions with the highest priority for the redevelopment of the area are: the improvement of the cycle-pedestrian

routes and the redevelopment and raising of the quays with consequent regularisation of the moorings.

The design phase began with the identification of the height to raise the quays to solve the main problem of frequent flooding due to tides and adverse weather conditions. Following an in-depth hydraulic study of the area in question and meetings with stakeholders, a raising of the quays to a height of 1.50 above sea level was justified and verified. Downstream of the Ponte della Resistenza bridge, the quays have already been recently renewed by the Municipality of Rimini. In that section, the docks are never lower than 1.20 m above sea level and are not normally submerged as is the case with the section upstream of the Ponte della Resistenza bridge. For this reason, the design proposal focused on the quays between the Tiberius Bridge and the Ponte della Resistenza bridge. The accesses to the quays and public spaces were studied in order to identify new functions for the benefit of the community. Following the raising of the quays, the bicycle and pedestrian paths along the two banks of the Canal Port were reviewed. The proposed solutions are currently being defined and refined and could receive funding from the Municipality of Rimini to be implemented.

PA 4.3 – Strategic document for the development of tourist ports in Marche Region - PP4 SVIM

Introduction

The PA 4.3 "Strategic document for the development of tourist ports in Marche Region" aims to support the updating of planning and management of tourist ports in Marche region, according to the regional tourism policy.

Indeed, the PA addresses the Macro Theme *Spatial planning and management*.

Through pilot action 4.3, SVEM intends to carry out an analysis and a study aimed at understanding the system of tourist ports of the Marche and analyzing their needs in terms of growth and sustainability and in supporting the regional tourism policies. A specific focus is addressed to the environmental and energy management of small ports through the realization of technical guidelines and templates.

Activities carried out so far

The activities of PA 4.3 "Strategic document for the development of tourist ports in Marche Region" are performed by an external Company and the complementary activities are carried out by SVEM own expertise.

During the July – August, SVEM accomplished the procurement procedure to assign the external expertise and the Company selected is Pool Engineering (POOLENG).

In September, POOLENG presented a draft version of the Working Plan, that has been shared and finalized by SVEM involving the associated partner Marche Region. The first activity was dedicated to the design of a specific survey to investigate the Marche tourist ports, in order to involve the ports managing authorities and the local departments of Coast Guard. A dedicated questionnaire was sent to these local actors on 20 October 2022.

In July, the general methodology and objectives on the environment and energy management were defined. In September, two testing Marche ports have been identified and in October, the first draft of the operational tool for the analysis of CO₂ emissions was detailed. Meetings with the concessionaires of the two pilot ports have been held and the draft of relation layout was detailed.

Intermediate results achieved

The main result achieved is the definition of the Working Plan for the "Strategic document for the development of tourist ports in Marche Region", that defines in details the topics that will be reported in the final document:

1. STATE OF THE ART OF THE REGULATORY, PROGRAMMING AND PLANNING CONTEXT, with focus on regional planning in the field of tourist ports and their enhancement in the context of regional / transnational tourism policy.
2. THE MARCHE TOURIST PORTS SYSTEM, analysis of multifunctional ports: the role of tourist docks inside the ports and their management model.
3. ANALYSIS OF THE DEMAND / OFFERING OF THE MARCHE TOURIST PORTS, including trends respect provision of Marche Regional Port Plan (2010), forecast of nautical needs, ports attractiveness as "access doors" to regional territories and the cross-border area.
4. PERSISTENT CRITICALITIES AND ANALYSIS OF THE MARCHE TOURIST PORT SYSTEM NEEDS, Gap Analysis of demand / supply of infrastructures and services of the regional nautical tourism, comparative analysis of the governance of tourist ports at national level
5. STRATEGIC GUIDELINES FOR THE DEVELOPMENT OF MARCHE TOURIST PORTS IN THE NATIONAL AND CROSS-BORDER AREA: proposals for updating regional planning context, proposal of strategic actions for the tourist enhancement of the Marche Ports addressing sustainable management models.

The provided methods of analysis are:

- desk research and analysis
- questionnaire directed to the managing bodies of Marche ports
- online survey aimed at trade associations (Assonautica, Assonadi, local nautical clubs ...), supported with meeting
- focus groups with managing bodies of tourist destinations in other Adriatic states.

Next steps

According to the Working Plan, the Stakeholders will be involved through interviews and specific meetings.

In the meantime, it will be drafted the content of the first 2 topics: 1. State of the art of the regulatory, programming and planning context, 2. The Marche tourist ports system.

Intermediary results will be shared with the associated partner Marche Region.

Focus on technical guidelines and templates the next activities are:

- finalization of the tools necessary for the development of an environmental energy plan of a tourist port;
- validation of the tools through the application of the methodology in the two pilot ports of the Marche region.

Actors/beneficiaries/stakeholders' involvement

The main stakeholders involved, besides Marche Region, are the ports managing authorities and the local departments of the Coast Guard invited to support the survey and that will be directly contacted shortly. Hereafter the list:

- Central Adriatic Ports Authority
- Departments responsible of Port Management of the Municipalities of Fano, Senigallia, Numana, Civitanova Marche, Porto San Giorgio, San Benedetto del Tronto, Gabicce a Mare
- Coast Guard, Local Departments of Fano, Senigallia, Numana, Civitanova Marche, Porto San Giorgio, San Benedetto del Tronto, Gabicce a Mare

Problems encountered

The procurement procedure and assignment of the service were originally planned by July 2022.

The assignment of service has been signed on the 2 September 2022, due to delays related to MEPA (Electronic market system of the Italian public administration).

The activities started in September but considering the extension of the FRAMESPORT project on the 30 June 2023 (according to the major change) the two months of delay don't represent a problem.

Monitoring activities

Indicator	Unit of measure	Target value	Time horizon for monitoring
Indicator 1	Number of stakeholders meeting	9	December 22
Indicator 2	Reports (advancement, and final reports)	2	December and February 2022
Indicator 3	focus group - webinar with the managing bodies of the tourist ports in the Adriatic cross-border area	1	January 2022
Indicator 4	monitoring tool for the development of the Marche tourist ports	1	February 2022

Conclusions

The pilot action 4.3 "Strategic document for the development of tourist ports in Marche Region" entered in the development phase, starting the comparison with the local stakeholders throughout a dedicated survey, an important step to support the updating of planning and management of tourist ports in Marche.

Marche Region, as associated partner, is strictly involved in the preparation activity as well as during the implementation of the action.

By the end of the year 2022, it will be produced a first draft advancement report that will be shared with FRAMESPORT project, included a first analysis on energy management of tourist ports.

PA 9.1 – Development of Master Plan for the development of a county-level port system in Zadar County - PP9 ZLUZ

Introduction

The aim of Pilot Action is to classify the county level port system and create necessary development steps for Zadar County ports, of which the end result will be a Master Plan.

This document will classify for the first time different levels of ports in a meaningful and systematic way. It will define the necessary steps and guidelines for the development of the port system in order to improve the infrastructure, commercialization of the port space, customer services, the available information for users and encourage cross- border cooperation/ service.

The County Port Authority of Zadar has the largest number of ports (111) under its jurisdiction. While these ports are of great local and county significance, most are underdeveloped and their commercial potential has not yet been adequately exploited. Development of these ports is of utmost importance for the touristic and economic system, depending on the cross - border exchange.

Regarding the durability and transferability, the Master Plan will classify ports at county and local level and this is absolutely applicable on the Croatian and Italian side. Furthermore, the development plan will cover the infrastructural, organizational, legal and economic aspects which can be further adapted to any region on the Adriatic or in Europe.

Activities carried out so far

Of the activities carried out it is important to mention that the Zadar Port Authority has finished a tender procedure for the development of a Master plan. The external expert has been appointed and creating of Master plan has already started.

Intermediate results achieved

Intermediate results include the compilation of data for the creation of the first draft of the Master Plan.

Next steps

After Master Plan's preparation, there will be carried out activities that include checking the validity and accuracy of the document, followed by potential proposals that will ultimately be useful for the development of the final version.

Actors/Beneficiaries/Stakeholders involvement

Stakeholders are not involved in the creation of Master Plan. They will be included after it's creation when they will participate in meetings for its validation and use.

Problems encountered

There were no problems during data collection and collation of them.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (June '21/ March. '22/ August '22)
Desk research	research	1x	1	November /Septembre 2021.
Draft of the Master Plan	draft document	1x	1/2 In progress	September/October 2022.
Final version of the Master Plan	final document	1x	0	November/December 2022.
Dissemination activities / presentation	presentation	1x	0	November 2022.

Conclusions

The conclusion part of this project pilot action report refers to the actions undertaken so far regarding the implementation activities from the County Port Authority of Zadar's side on the FRAMESPORT project. The pilot's timeline is in line with the rest of the ongoing activities and should not have encountered any kind of delays. The contract with the external experts has been signed and the Master Plan first draft is done.

PA 14.1 – Development of Master Plan for the development of a county-level port system in Ličko-Senjska County - PP14 LUSE

Introduction

Introductory part of this preparatory report describes the pilot project activities undertaken by the Senj Port Authority. Aim of the activities envisaged for this project consist of extensive research activities encompassing a lot of smaller scale surveys and researches whose final purpose leads to creation of the Master Plan for the development of a county-level port system in Ličko – Senjska County. Researches plan to develop an overview of the existing state in all of the smaller ports under the Ličko – Senjska County governance and according to the results, the Master Plan will be created encompassing all of the short-comings and all of the improvement potentials for all of the ports in County. Port of Senj as the biggest port containing the largest number of entities and stakeholders will benefit from the thorough research regarding all of the possibilities that could benefit the region. Stakeholders will be involved in several levels of the process to assure the most transparent scenario will be represented in the Master Plan.

Activities carried out so far

In this report, it is worth mentioning that the Senj Port Authority conducted a tendering procedure where an external expert has been appointed for the creation of the Master Plan in regards to the creation of a document that represents a development plan on a county-level port system in Lika-Senj County.

Intermediate results achieved

Intermediate results encompass Master Plan in its final version. The Master Plan is completed signifying that the main part of the pilot is finalized.

Next steps

Following the creation of a draft and final version of the Master Plan, the plan is to include stakeholders through meetings and communication with them. As per the deliverables regarding the pilot itself, the port authority of Senj has to complete the pilot action final report and report on pilot actions replicability.

Actors/Beneficiaries/Stakeholders involvement

Stakeholders weren't yet involved in this phase of the project pilot but will participate in meetings when the dissemination activities should begin.

Problems encountered

No problems were encountered during the researching activities nor during the creation of the Master Plan final document.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Desk research	research	1x	1	... - June/July 2021.
Draft of the Master Plan	draft document	1x	1	February / March 2022.
Final version of the Master Plan	final document	1x	1	April/May 2022.
Dissemination activities / presentation	presentation	1x	0	September 2022.

Conclusions

The conclusion part of this project pilot action report refers to the actions undertaken so far regarding the implementation activities from the Senj Port Authority's side on the FRAMESPORT project. The pilot's timeline is in line with the rest of the ongoing activities and should not have encountered any delays.

The external experts were timely appointed and the Master Plan final version is completed in a projected time and manner.

Latter activities involve dissemination activities.

4.3.1. Comments

Three out of four PAs contain in their titles the word "Master-plan" since wide areas (counties or regions) are analysed from many different points of view. Data collection and stakeholders' involvement are crucial in all the four cases for performing a proper analysis of the study area and to identify the priorities in the interventions. All the four PAs are almost at their end: most of the time was dedicated to the analysis and to the development of a methodology, whereas now it is time to prepare the required written documentation.

4.4. Training and knowledge aspects

Table 4.4-1 Pilot Actions of the macro theme: Training and knowledge aspects

Macro-theme	PP	PA
T&K	PP1 - MMON	1.1
	PP5 - ARAP	5.4

PA 1.1 – Develop / refine professional skills for refitters and shipwrights for the classic and historical boat sector - PP1 MMON

Introduction

Regarding the macro-theme Municipality of Monfalcone has planned to realize a first Pilot Action called: “Develop/ refine professional skills for refitters and shipwrights for classical boat sector”.

The goal is to develop interest, especially among the younger generations, towards the skills and knowledge of the shipwrights, in order to continue in the future this important tradition and develop it also thanks to new technologies.

The aim of the pilot action is to strengthen the operational capacities of sailing and nautical centers through the improvement of professional skills dedicated to ancient crafts and applied to new technologies. The challenge that the pilot action involves is the recovery of knowledge related to the profession of shipwrights that in recent years has had less and less development and that we want to bring back to a new interest in training and guidance to the new generations.

The implementation of the pilot action has been entrusted to an external company that won the public tender procedure.

Activities carried out so far

The first part of PA has been completed and the database of classic and vintage sailboats is online and can be used by all interested people. It’s available in Italian and English.

The company entrusted by PPMonfalcone is now working on the realization of the training modules for the Axe’s Masters School which will be presented to the public during Barcolana event in October.

Intermediate results achieved

At the moment the implementation of the activities has been concluded regarding the database platform which is available for the public. The company is still working on training modules.

Next steps

In the next period, the activities will be the realization and insertion of the training modules in e learning. At the publication a promotional activity through the dissemination of the project dedicated to the School of axe masters on dedicated channels and an educational for the press. Lastly, a scholastic orientation activity will be carried out for the students of the third classes of the lower primary cycle of the Monfalcone schools.

Actors/Beneficiaries/Stakeholders involvement

The actors of the pilot action are the Maestri d'Ascia who have provided their skills and knowledge to support the implementation of the various activities. Beneficiaries of the concluded action will be the students of the schools (school orientation activities) and the participants of the Training School that will be realized through remote training modules thanks to the platform tool.

Problems encountered

Delay due to the necessary administrative processes and controls.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Training activities	Number of participants	10-15	NA	July '22
Number of training modules organized	Number of training modules	6	NA	July '22
Number of events	Number of event days	3-5	NA	July '22

Conclusions

The pilot action "Ancient crafts and new technologies", under the macro theme "Training and knowledge activities" has as its aim to strengthen the operational capacity of sailing and nautical centers through the improvement of professional skills to support businesses and promote the training/upgrading of axe masters aimed at new generations and the enhancement of classic and vintage sails.

The action foresees the development of a series of integrated interventions aimed not only at preventing the risk of disappearance but also at developing new sustainable businesses and a digital

place of knowledge in order to bring technological growth to sailing centers and the development of specialized training.

Now, with regard to the pilot action, the public procedure phase has been concluded and the contractor has carried out the first activities.

PA 5.4 – Creation of Innovation Lab to promote development and planning of small ports along the Adriatic coasts: training and learning events

A description of this pilot action is included in the paragraph: PA 5.3 – Creation of Innovation Lab to promote development and planning of small ports along the Adriatic coasts: ICT Platform for monitoring and supervision of freights/passenger - PP5 ARAP.

4.4.1. Comments

The two PAs in the macro-theme “Training and knowledge aspects” are almost at their end: most of the expected workshop and meetings took place in the last months. It was sometimes difficult to meet the needs of touristic associations, schools, and local marinas at the same time, but almost all the events to be organised have regularly taken place. Now it is only time to refine the details of the parallel activities to be carried out (e.g., the database, in case of the PA 1.1).

4.5. Business oriented aspects

Table 4.5-1 Pilot Actions of the macro theme: Business oriented aspects

Macro-theme	PP	PA
Business	PP12 - LOGO	12.1

PA 12.1 – Development of small port prototype. Identification of opportunities to be taken in order to develop a single port and convey outcomes to stakeholders for the future development and investment plans - PP12 LOGO

Introduction

The concept of Logoteam’s pilot encompasses research that falls under the macro theme of business-oriented aspects meaning that the effort relies on the collaboration of directly and indirectly involved stakeholders which together with research team help with the development of prototype of a small port keeping in mind that the whole point is the successfully implement measure that are possibly already in use somewhere and research their use-cases and their transferability capabilities,

The aim of the pilot is to educate the port authorities on the possibilities of upgrading ports at infrastructure level, super-structure, user services and / or port management organization.

Small ports are seen as drivers for improvement of maritime transport and sustainable development in the Adriatic area. Small ports can and should better use their potential at all levels, thus they can become generators of local and regional development. They are of utmost importance for tourism and economic prosperity at islands. Aim of the project pilot works best as its cross-border dimension is emphasized as the small ports are differently developed on the Croatian and Italian side of the Adriatic. They vary in size, purpose, level of development, equipment, technological advancement, customer service, etc. They have in common that they have a lot of room for progress and that they are underutilizing their potential. They are of paramount importance for the life of the areas in which they are located, for the development of tourism and for the overall economic activities in the areas and need to be improved. Defining a small port prototype and promoting it is equally important on both sides of the Adriatic.

Durability and transferability of the developed prototype of small ports can be promoted and implemented in any Adriatic or European port. In any case, it is necessary to analyse the existing port, its infrastructure, organization and technological progress and propose improvement measures. In this way it is possible to implement the prototype universally anywhere.

Aim of Logoteam's pilot action consists of research and systematization of opportunities that have the potential to be implemented and successfully deployed in small ports and harbours on both sides of the Adriatic coast. Research consists of discovering best practises all around the world while also keeping track of the current situation and opportunities that have potential in the existing state of the ports. Researching encompasses a whole spectrum of fields of potential improvement ranging from opportunities in use of renewable energy, efficient business practises, facilitation of existing processes, ecologically acceptable waste disposal practises, emergency reaction kits and whole lot of other spheres...

All of the potential improvement factors will be an agenda for the discussion with relevant stakeholders so the outcome can reflect everyone's vision for the future development of the ports and harbours.

Activities carried out so far

Project Partner Logoteam's members focused on thorough desk and occasional field research regarding the existing state of Adriatic ports, coupled with forming of a draft document containing non-exhaustive examples and best practises from all over the world. As the task complexity exceeds its nominal expectations, most of the work falls under the category of deep desk researching activities.

Intermediate results achieved

Intermediate results encompass creation of a document containing the best practises from ports and similar infrastructural areas keeping in mind that the ultimate goal is sustainability, thus most of the examples in the document focus on efficient business practices and processes, renewable energy, waste management solutions... The document draft consists of several chapters or paragraphs, each containing one of the aspects that could potentially be transferred to the Adriatic coast. The aforementioned documents consist of following sub-paragraphs: Informatization, ecology, services, safety, tourist offering, infrastructure and superstructure.

Next steps

Following activities encompass continuation of research work that needs to be done which is then followed by compiling of a final draft version of a document, i.e., pinnacle of this pilot action. The step after involves project pilot's dissemination activities.

Actors/Beneficiaries/Stakeholders involvement

At this point, stakeholders weren't involved yet.

Use of the equipment

Procured computers, or more specifically, laptops are representing a huge factor in everyday research activities. As mentioned before, most of the work done on this pilot action revolves around desk research and digital systematization of acquired materials, thus the necessity and importance of laptops becomes indispensable.

Problems encountered

No problems were encountered until this point.

Monitoring activities

Indicator	Unit of measure	Target value	Achieved value	Time horizon for monitoring (July '21/ Feb. '22/ July '22)
Desk research	1x research	1	1	<i>Beginning – September 2022.</i>

Draft of the document	1x document draft	1	1	<i>September 2021. – September 2022.</i>
Final version of the document	1x final document	1	0,5	<i>September 2022.</i>
Presentation to the stakeholders	1x presentation	2	/	<i>October 2022. – End of project</i>

Conclusions

Content of this pilot action report consists of an introduction part where the brief intro of the pilot action is described together with overall aims and goals. Second part of this report focuses on detailed description of past and current activities that have been done within the scope of this pilot activity ranging from pilot's aim, percentage of completion until the point of writing of this document, activities carried out so far couple with intermediate results achieved until now. The focus moves the future or following activities that are required in order to see this pilot completed, involvement of stakeholders and use of thematic equipment. After the exhaustive description, a table containing the milestones for the purpose of monitoring the activities presents a roadmap for completion of the pilot coupled with the expected timeline for each milestone. The ultimate part of the report contains the brief summarization of the report together with project partner's members remarks.

4.5.1. Comments

The development of the only PA whose macro-theme is "Business oriented aspects" is not actually far from the E&E and P&M PAs: a combination of desk research and practical operation on-site for helps in making ports more sustainable.